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GREAT PLAINS REGION RECLAMATION PROJECTS

HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

S. 53

TO AUTHORIZE THE REFORMULATION OF THE CEDAR BLUFF UNIT OF THE PICK-SLOAN MISSOURI BASIN PROGRAM, KANSAS, TO PROVIDE FOR THE AMENDMENT OF WATER SERVICE AND REPAYMENT CONTRACTS

S. 202

TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO CONSTRUCT, OPERATE, AND MAINTAIN THE LAKE ANDES-WAGNER UNIT AND THE MARTY II UNIT, SOUTH DAKOTA PUMPING DIVISION, PICK-SLOAN MISSOURI BASIN PROGRAM, SOUTH DAKOTA

S. 486

TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO CONSTRUCT AND TEST THE LAKE MEREDITH SALINITY CONTROL PROJECT, NEW MEXICO AND TEXAS, AND FOR OTHER PURPOSES

S. 1121

TO AUTHORIZE ADDITIONAL APPROPRIATIONS FOR THE CONSTRUCTION OF THE BUFFALO BILL DAM AND RESERVOIR, SHOSHONE PROJECT, PICK-SLOAN MISSOURI BASIN PROGRAM, WYOMING

S. 1275

TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO CONSTRUCT, OPERATE, AND MAINTAIN A WATER TREATMENT PLANT FOR THE PURPOSE OF TREATING WATER DISCHARGED FROM THE LEADVILLE MINE DRAINAGE TUNNEL NEAR LEADVILLE, COLORADO, IN ORDER TO MEET WATER QUALITY STANDARDS, AND FOR OTHER PURPOSES

SEPTEMBER 14, 1989

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GREAT PLAINS REGION RECLAMATION PROJECTS

THURSDAY, SEPTEMBER 14, 1989

U.S. Senate,
Subcommittee on Water and Power,
Committee on Energy and Natural Resources,
Washington, DC.

The subcommittee met, pursuant to notice, at 2 p.m., in room SD-366, Dirksen Senate Office Building, Hon. Bill Bradley, presiding.

OPENING STATEMENT OF HON. BILL BRADLEY, U.S. SENATOR FROM NEW JERSEY

Senator **Bradley**. The subcommittee will come to order.

I would like to welcome all of our witnesses to the hearing and note that we are privileged to be joined by several Senators, as well as Governor Mickelson of South Dakota who I think will be here later. I would like to thank all of them for joining us today.

The Subcommittee on Water and Power will hear testimony today on five bills, and we will hear the testimony in the following order: S. 1275, a bill to authorize construction of the Leadville Mine Tunnel Drainage Treatment Plant in Colorado; S. 486, a bill to authorize construction of the Lake Meredith salinity control project in Texas; S. 1121, a bill to authorize additional appropriations for the Buffalo Bill Dam construction project; S. 53, a bill to authorize reformulation of the Cedar Bluff unit in Kansas; and S. 202, a bill to authorize construction of the Lake Andes-Wagner and Marty II irrigation projects in South Dakota.

Given the substantial amount of business that we have to conduct today, I would like to ask each witness, other than, of course, my colleagues and Governor Mickelson, to limit their testimony to 5 minutes. So, that means that, if you have a very lengthy document, please submit it for the record; it will be recorded in full. But, you should be thinking in terms of 5 minutes for the purpose of your presentation to the subcommittee.

Before we begin, I would like to make sure that all the witnesses understand that I will be evaluating the proposals in light of the Bureau of Reclamation's new mission, which emphasizes responsible, balanced natural resource management. Are the projects environmentally sound? Do the economics make sense? Are the projects consistent with other congressional and administration initiatives in the areas of agricultural and land use reform? Can these projects be improved to provide a broader range of public benefits?

Those are the questions that we will be exploring with each of the bills before us.

In addition, I would like to explain that the subcommittee will operate a little differently than it has in the past. I would like to make this clear to all members and their staffs generally, as well as to the witnesses today. If a bill has not had a thorough hearing in this subcommittee and been acted on by the full Energy and Natural Resources Committee, it simply will not be considered on the floor of the Senate. That means no House bills held at the desk, no major amendments to house bills accepted. I can think of no circumstances that would allow for exception. That, I believe, is the only way to conduct this committee's deliberations so that the public interest benefits to the maximum degree.

I appreciate the witnesses coming from, in some cases, quite far to share with us their views today.

So, with that said, why don't we begin with S. 1275, which is the Leadville Tunnel bill. Senator Wirth, who is a distinguished member of this subcommittee, is here along with Max Dodson of EPA and Joe Hall of Bureau of Reclamation.

I would like to ask Joe Hall and Roger Patterson to remain at the table throughout all the witnesses' testimony. Because I will be going back and forth, I think you will provide the continuity for this whole process.

Senator Wirth?

[The texts of the bills follow:]

II

101st CONGRESS
1st Session

S. 53

To authorize the reformulation of the Cedar Bluff Unit of the Pick-Sloan Missouri Basin Program, Kansas, to provide for the amendment of water service and repayment contracts.

IN THE SENATE OF THE UNITED STATES

Mr. Dole (for himself and Mrs Kassebaum) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To authorize the reformulation of the Cedar Bluff Unit of the Pick-Sloan Missouri Basin Program, Kansas, to provide for the amendment of water service and repayment contracts.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. AUTHORIZATION OF REFORMULATION.

The Secretary of the Interior (hereafter in this Act referred to as the "Secretary"), pursuant to the provisions of the Memorandum of Understanding between the Bureau of Reclamation and the Fish and Wildlife Service of the Department of the Interior, the State of Kansas, and the Cedar Bluff Irrigation District No. 6, dated December 17, 1987, is authorized to reformulate the Cedar Bluff Unit of the Pick-Sloan Missouri Basin Program, Kansas, including reallocation of the conservation capacity of the Cedar Bluff Reservoir, to create—

(1) a designated operating pool, as defined in such Memorandum of Understanding, for fish, wildlife, and recreation purposes, for groundwater recharge for environmental, domestic, municipal, industrial, and irrigation uses, and for other purposes; and

(2) a joint-use pool, as defined in such Memorandum of Understanding, for flood control, for water sales, for fish, wildlife, and recreation purposes, and for other purposes.

SEC. 2. CONTRACT WITH THE STATE OF KANSAS FOR OPERATING POOL.

The Secretary may enter into a contract with the State of Kansas for the sale, use and control of the designated operating pool, with the exception of water reserved for the city of Russell, Kansas, and to allow the State of Kansas to acquire use and control of water in the joint-use pool.

SEC. 3. CONTRACT WITH THE STATE OF KANSAS FOR CEDAR BLUFF DAM AND RESERVOIR.

(a) AUTHORIZATION.—The Secretary may enter into a contract with the State of Kansas, accepting a payment of $365,424, and the State's commitment to pay a proportionate share of the annual operation, maintenance, and replacement charges for the Cedar Bluff Dam and Reservoir, as full satisfaction of the reimbursable costs associated with irrigation of the Cedar Bluff Unit, including the Cedar Bluff Irrigation District's obligations under Contract No. 0-07-70-W0064. After the reformulation of the Cedar Bluff Unit authorized by this Act, any revenues in excess of operating expenses received from the sale of water from the Cedar Bluff Unit shall be allocated to pay the United States for the cost of the project.

(b) TRANSFER OF FISH HATCHERY.—The Secretary may transfer ownership of the buildings, fixtures, and equipment of the United States Fish and Wildlife Service fish hatchery facility at Cedar Bluff Dam, and the related water rights, to the State of Kansas for its use and operation for fish, wildlife, and related purposes.

SEC. 4. TRANSFER OF DISTRICT HEADQUARTERS.

The Secretary may transfer title to all interests in real property, buildings, fixtures, equipment, and tools associated with the Cedar Bluff Irrigation District headquarters located near Hays, Kansas, contingent upon the District's agreement to close down the irrigation system to the satisfaction of the Secretary at no additional cost to the United States, after which all easement rights shall revert to the owners of the lands to which the easements are attached. The transferee of any interests conveyed pursuant to this section shall assume all liability with respect to such interests and shall indemnify the United States against all such liability.

SEC. 5. ADDITIONAL ACTIONS.

The Secretary may take all other actions consistent with the provisions of the Memorandum of Understanding referred to in section 1 that the Secretary deems necessary to accomplish the reformulation of the Cedar Bluff Unit.

○

II

101ST CONGRESS
1ST SESSION

S. 202

To authorize the Secretary of the Interior to construct, operate, and maintain the Lake Andes-Wagner Unit and the Marty II Unit, South Dakota Pumping Division, Pick-Sloan Missouri Basin Program, South Dakota.

IN THE SENATE OF THE UNITED STATES

JANUARY 25 (legislative day, JANUARY 3), 1989

Mr. DASCHLE (for himself and Mr. PRESSLER) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To authorize the Secretary of the Interior to construct, operate, and maintain the Lake Andes-Wagner Unit and the Marty II Unit, South Dakota Pumping Division, Pick-Sloan Missouri Basin Program, South Dakota.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. AUTHORIZATION OF THE LAKE ANDES-WAGNER UNIT AND THE MARTY II UNIT, SOUTH DAKOTA.

(a) AUTHORIZATION.—In partial recognition of the inundation of lands in South Dakota, including lands in the Yankton Sioux Indian Reservation, by mainstem Missouri River reservoirs constructed and operated by the United

States under the comprehensive plans approved and authorized by section 9 of the Flood Control Act of December 22, 1944 (58 Stat. 887, 891) (hereafter in this Act referred to as the "Pick-Sloan Missouri Basin Program"), the Secretary of the Interior (hereafter in this Act referred to as the "Secretary") is authorized to construct, operate, and maintain the Lake Andes-Wagner Unit and the Marty II Unit, South Dakota, as Units of the South Dakota Pumping Division, Pick-Sloan Missouri Basin Program.

(b) LAKE ANDES-WAGNER UNIT.—The Lake Andes-Wagner Unit shall be constructed, operated, and maintained to serve approximately 45,000 acres substantially as provided in the Lake Andes-Wagner Unit Planning Report and Final Environmental Impact Statement filed September 17, 1985.

(c) MARTY II UNIT.—(1) The Marty II Unit shall include a river pump, irrigation distribution system, booster pumps, irrigation sprinkler systems, farm and project drains, electrical distribution facilities, and the pressurization to serve approximately 3,000 acres of Indian-owned land in the Yankton Sioux Indian Reservation.

(2) Construction of the Marty II Unit shall not begin until—

(A) the Secretary certifies the irrigability of the lands; and

(B) the completion of an environmental impact statement or a finding of no significant impact and, if required, the completion of a mitigation plan for any adverse effects which may be caused by the Marty II Unit.

SEC. 2. CONDITIONS AND RESTRICTIONS.

(a) IN GENERAL.—The Lake Andes-Wagner Unit and the Marty II Unit shall be integrated physically and financially with other Federal works constructed under the Pick-Sloan Missouri Basin Program.

(b) LAKE ANDES-WAGNER UNIT.—The Lake Andes-Wagner Unit shall include on-farm pumps, irrigation sprinkler systems, and other on-farm facilities necessary for the irrigation of approximately 1,700 acres of Indian-owned lands. The use of electric power and energy required to operate the facilities for the irrigation of such Indian-owned lands and to provide pressurization for such Indian-owned lands shall be considered to be a project use.

(c) CONSTRUCTION COSTS.—The construction costs for the Lake Andes-Wagner Unit and the Marty II Unit allocated to irrigation (both those assigned for return by the water users and those assigned for return from power revenues of the Pick-Sloan Missouri Basin Program) shall be repayed for each unit no later than 40 years following the development period, except that repayment of such costs allocated to irrigation of Indian-owned lands shall be governed by the Act of July 1, 1932 (47 Stat. 564 Chapter 369; 25 U.S.C. 386a).

(d) INDIAN-OWNED LANDS.—Indian-owned lands, or interests therein, required for the Lake Andes-Wagner or Marty II Units may, as an alternative to their acquisition under authority available to the Secretary under existing law, be acquired by exchange for lands or interests therein of equal or greater value which are owned by the United States and administered by the Secretary or which may be acquired for that purpose by the Secretary.

(e) AGRICULTURE PROGRAMS.—For purposes of participation of lands in the Lake Andes-Wagner and Marty II Units in programs covered by title V of the Agricultural Act of 1949 (7 U.S.C. 1461 et seq.), the crop acreage base determined under section 504 of such Act (7 U.S.C. 1464) and the program payment yield determined under section 506 of such Act (7 U.S.C. 1466) shall be the crop acreage base and program payment yield established for the crop year immediately preceding the crop year in which the development period for each Unit is initiated. For any successor programs established for crop years subsequent to 1990, the acreage and yield on which any program payments are based shall be determined without taking into consideration any increase in acreage or yield resulting from the construction and operation of such Units.

SEC. 3. FEDERAL RECLAMATION LAWS GOVERN.

This Act is a supplement to the Federal reclamation laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof and supplemental thereto). The Federal reclamation laws shall govern the construction, operation, and maintenance of the works authorized by this Act, except as otherwise provided in this Act.

SEC. 4. COST SHARING.

(a) IN GENERAL.—The Proposal dated September 29, 1987, supplemented October 30, 1987 (on file with the Committee on Interior and Insular Affairs of the House of Representatives and with the Committee on Energy and Natural Resources of the Senate), pursuant to which the State of South Dakota (hereafter in this Act referred to as the "State") and the Lake Andes-Wagner Irrigation District (hereafter in this Act referred to as the "District") would provide funding for certain costs of the Lake Andes-Wagner Unit, and the District would also assume certain responsibilities with respect thereto, is approved. The Secretary shall promptly enter into negotiations with the State and the District to conclude an agreement between the United States, the State, and the District implementing the proposal.

(b) TERMS AND CONDITIONS.—The agreement shall include provisions for—

(1) the establishment and capitalization of the non-Federal fund, including, subject to the Secretary's

approval, investment policies and selection of the administering financial institution, and including also provisions dealing with withdrawals of moneys in the fund for construction purposes;

(2) the District to administer the design and construction, which shall be subject to the approval of the Secretary, of the distribution and drainage systems for the Lake Andes-Wagner Unit;

(3) financing, from moneys in the fund referred to in paragraph (1), the construction cost of the ring dike, not exceeding $3,500,000, the construction cost, if any, of such dike in excess of that amount being the responsibility of the United States but any such excess cost remains reimbursable, subject to the condition that construction of the ring dike shall not commence earlier than the sixth year of full operation; and

(4) financing, from moneys in the fund referred to in paragraph (1) the construction cost of the Unit's closed drainage system, not exceeding $36,000,000, the construction cost, if any, of the closed drainage system in excess of that amount being the responsibility of the United States but any such excess cost remains reimbursable, subject to the condition that—

(A) construction of the closed drainage system shall commence not earlier than the sixth year of full operation of the Unit and shall continue over a period of thirty-five years as required by the Secretary subject to such modifications in the commencement date and the construction period as the Secretary determines to be required on the basis of physical conditions; and

(B) the District, in addition to such annual assessments as may be required to meet its expenses (including operation and maintenance costs and any annual repayment installments to the United States) shall, commencing three years after construction of the Unit (other than drainage facilities) has been completed, levee assessments annually of not less than $1.00 per irrigable acre calculated to provide moneys sufficient, together with other moneys in the fund, including anticipated accruals, referred to in paragraph (1), to finance not to exceed $36,000,000 of the construction costs of the closed drainage system.

(c) ANNUAL BUDGET REPORTS.—(1) Subject to the provisions of paragraph (2), the Secretary of the Interior shall request that there be included in the annual budget documents submitted by the President to Congress funds permitting completion of construction of the Lake Andes-Wagner Unit (other than the ring dike and closed drainage features) over a period of six years beginning no later than the fiscal year that commences in the second calendar year following the calendar year in which this Act becomes law.

(2) In the event of a delay in construction occasioned by an act of God, or of the public enemy, or any major catastrophe or other unforseen and unavoidable cause of a similar nature, appropriate extensions of time shall be afforded the District in the making of assessments to finance construction of the closed drainage system as specified in subsection (b)(4).

SEC. 5. AUTHORIZATION.

(a) LAKE ANDES-WAGNER UNIT.—(1) There are authorized to be appropriated—

(1) $150,000,000 (October 1984 price levels) for construction of the Lake Andes-Wagner Unit (other than the facilities described in section 2(b)); and

(2) $1,200,000 (October 1984 price levels) for construction of the facilities described in section 2(b), which amounts include costs of the Lake Andes-Wagner Irrigation District in administering design and construction of the irrigation distribution and drainage systems.

(b) MARTY II UNIT.—There are authorized to be appropriated $15,000,000 (October 1984 price levels) for construction by the Bureau of Reclamation in consultation with the Bureau of Indian Affairs of the Marty II Unit.

(c) Engineering Costs Adjustments.—The amounts authorized to be appropriated by subsections (a) and (b) shall be plus or minus such amounts, if any, as may be required by engineering cost indexes applicable to such construction.

(d) Operation and Maintenance.—There are authorized to be appropriated such sums as may be necessary for the operation and maintenance of each Unit.

○

II

101st CONGRESS
1st Session

S. 486

To authorize the Secretary of the Interior to construct and test the Lake Meredith Salinity Control Project, New Mexico and Texas, and for other purposes.

IN THE SENATE OF THE UNITED STATES

March 1 (legislative day, January 3), 1989

Mr. Bentsen introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To authorize the Secretary of the Interior to construct and test the Lake Meredith Salinity Control Project, New Mexico and Texas, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. AUTHORIZATION TO CONSTRUCT AND TEST.

The Secretary of the Interior (hereafter in this Act referred to as the "Secretary") is authorized to construct and test the Lake Meredith Salinity Control Project, New Mexico and Texas, in accordance with the Federal Reclamation laws (Act of June 17, 1902, 32 Stat. 788, and Acts amendatory thereof or supplementary thereto) and the provisions of this Act and the plan set out in the June 1985 Technical Report of the Bureau of Reclamation on this project with such modification of, omissions from, or additions to the works, as the Secretary may find proper and necessary for the purpose of improving the quality of water delivered to the Canadian River downstream of Ute Reservoir, New Mexico, and entering Lake Meredith, Texas. The principal features of the project shall consist of production wells, observation wells, pipelines, pumping plants, brine disposal facilities, and other appurtenant facilities.

SEC. 2. CONSTRUCTION CONTRACT WITH THE CANADIAN RIVER MUNICIPAL WATER AUTHORITY.

(a) AUTHORITY TO CONTRACT.—The Secretary is authorized to enter into a contract with the Canadian River Municipal Water Authority of Texas for the design and construction management of project facilities by the Bureau of Reclamation and for the payment of construction costs by the Canadian River Municipal Water Authority. Operation and maintenance of project facilities upon completion of construction and testing shall be the responsibility of the Canadian River Municipal Water Authority.

(b) CONSTRUCTION CONTINGENT ON CONTRACT.—Construction of the project shall not be commenced until a suitable contract has been executed by the Secretary with the Canadian River Municipal Water Authority of Texas and the

State of New Mexico has granted the necessary permits for the project facilities.

SEC. 3. PROJECT COSTS.

(a) CANADIAN RIVER MUNICIPAL WATER AUTHORITY SHARE.—All costs of construction of project facilities shall be advanced by the Canadian River Municipal Water Authority as the non-Federal contribution toward implementation of this Act. Pursuant to the terms of the contract authorized by section 2, these funds shall be advanced on a schedule mutually acceptable to the Canadian River Municipal Water Authority and the Secretary, as necessary to meet the expense of carrying out construction and land acquisition activities.

(b) FEDERAL SHARE.—All project costs for verification, design preparation, and construction management (estimated to be approximately 33 percent of the total project cost) shall be nonreimbursable as the Federal contribution for environmental enhancement by water quality improvement.

SEC. 4. CONSTRUCTION AND CONTROL.

(a) PRECONSTRUCTION.—The Secretary shall, upon entering into a mutually acceptable agreement with the Canadian River Municipal Water Authority, proceed with preconstruction planning, preparation of designs and specifications, acquiring permits, acquisition of land and rights, and award of construction contracts pending availability of appropriated funds.

(b) TERMINATION OF CONSTRUCTION.—At any time following the first advance of funds by the Canadian River Municipal Water Authority, the Canadian River Municipal Water Authority may request that the Secretary terminate activities then in progress, and such request shall be binding upon the Secretary.

(b) TRANSFER OF CONTROL.—Upon completion of construction and testing of the project, or upon termination of activities at the request of the Canadian River Municipal Water Authority, the Secretary shall transfer the care, operation, and maintenance of the project works to the Canadian River Municipal Water Authority or to a bonafide entity mutually agreeable to the States of New Mexico and Texas. As part of such transfer, the Secretary shall return unexpended balances of the funds advanced, assign to the Canadian River Municipal Water Authority or the bonafide entity the rights to any contract in force, convey to the Canadian River Municipal Water Authority or the bonafide entity any real estate, easements, or personal property acquired by the advanced funds, and provide any data, drawings, or other items of value procured with advanced funds.

SEC. 5. AUTHORIZATION.

There are hereby authorized to be appropriated such sums as are necessary to carry out the provisions of this Act.

○

II

101st CONGRESS
1st Session

S. 1121

To authorize additional appropriations for the construction of the Buffalo Bill Dam and Reservoir, Shoshone Project, Pick-Sloan Missouri Basin Program, Wyoming.

IN THE SENATE OF THE UNITED STATES

June 6 (legislative day, January 3), 1989

Mr. Wallop (for himself and Mr. Simpson) introduced the following bill; which was read twice and referred to the Committee on Energy and National Resources

---

A BILL

To authorize additional appropriations for the construction of the Buffalo Bill Dam and Reservoir, Shoshone Project, Pick-Sloan Missouri Basin Program, Wyoming.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. ADDITIONAL AUTHORIZATION OF APPROPRIATIONS FOR BUFFALO BILL DAM AND RESERVOIR, SHOSHONE PROJECT, PICK-SLOAN MISSOURI BASIN PROGRAM.

Title I of Public Law 97–293 (96 Stat. 1261) is amended as follows:

(1) In the second sentence of section 101, by striking "replacing the existing Shoshone Powerplant,"

and inserting "constructing power generating facilities with a total installed capacity of 25.5 megawatts,"

(2) In section 102—

(A) by amending the heading to read as follows:

"RECREATIONAL FACILITIES, CONSERVATION, AND FISH AND WILDLIFE";

and

(B) by adding at the end the following: "The construction of recreational facilities in excess of the amount required to replace or relocate existing facilities is authorized, and the costs of such construction shall be borne equally by the United States and the State of Wyoming pursuant to the Federal Water Project Recreation Act.".

(3) In section 106(a)—

(A) by striking "for construction of the Buffalo Bill Dam and Reservoir modifications the sum of $106,700,000 (October 1982 price levels)" and inserting "for the Federal share of the construction of the Buffalo Bill Dam and Reservoir modifications and recreational facilities the sum of $80,000,000 (October 1988 price levels)"; and

(B) by striking "modifications" and all that follows and inserting "modifications.".

○

II

101st CONGRESS
1st Session

S. 1275

To authorize the Secretary of the Interior to construct, operate, and maintain a water treatment plant for the purpose of treating water discharged from the Leadville Mine Drainage Tunnel near Leadville, Colorado, in order to meet water quality standards, and for other purposes.

IN THE SENATE OF THE UNITED STATES

June 23 (legislative day, January 3), 1989

Mr. Wirth introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources.

A BILL

To authorize the Secretary of the Interior to construct, operate, and maintain a water treatment plant for the purpose of treating water discharged from the Leadville Mine Drainage Tunnel near Leadville, Colorado, in order to meet water quality standards, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, This act may be cited as the "Leadville Mine Drainage Treatment Act of 1989".

Sec. 101. The Secretary of the Interior is authorized to construct, operate, and maintain a water treatment plant, including the disposal of sludge produced by said treatment plant as appropriate, and to install concrete lining on the rehabilitated portion of the Leadville Mine Drainage Tunnel, in order that water flowing from the Leadville Tunnel may meet water quality standards.

SEC. 102. Construction, operation and maintenance costs of the works authorized by this Act shall be non-reimbursable.

SEC. 103. The Secretary of the Interior shall be responsible for operation and maintenance of the water treatment plant, including sludge disposal authorized by this Act. The Secretary may contract for these services.

SEC. 104. There is hereby authorized to be appropriated beginning October 1, 1989, for construction of a water treatment plant for water flowing from the Leadville Mine Drainage Tunnel, including sludge disposal, and concrete lining the rehabilitated portion of the tunnel, the sum of $10,700,000 (October 1988 price levels), plus or minus such amounts, if any, as may be required by reason of ordinary fluctuations in construction costs as indicated by engineering cost indexed applicable to the types of construction involved herein and, in addition thereto, such sums as may be required for operation and maintenance of the works authorized by this Act.

SEC. 105. The treatment plant authorized by this Act shall be designed and constructed to treat the quantity and quality of effluent historically discharged from the Leadville Mine Drainage Tunnel.

○

STATEMENT OF HON. TIMOTHY E. WIRTH, U.S. SENATOR FROM COLORADO

Senator **Wirth**. Mr. Chairman, thank you very much for your expeditious handling of this bill and, for holding this hearing today. We greatly appreciate it.

I would like to have included in the record the statement by Tommy Thompson, from Pueblo, Colorado, who is with the southeastern Colorado Water Conservancy District. Mr. Thompson wanted to be here today, but at the last moment was not able to come. He is the rain and water expert for southeastern Colorado.

Senator **Bradley**. Mr. Thompson's statement will be in the record in full.

Senator **Wirth**. Thank you very much, sir.

We are asking for an $11 million Bureau of Reclamation water treatment plant.

The Leadville Tunnel comes out of the formerly very rich mines in the Leadville area, particularly gold and silver mines. The Leadville Tunnel was built during the war and is owned by the Bureau of Reclamation. It was built during the war to drain water from the gold and silver mines. It was effectively part of the war effort.

The Leadville Tunnel drains into the Arkansas River. The drainage water is contaminated by a variety of heavy metals. The contamination is damaging to the river, to wildlife, to water quality, to all of the benefits that the Arkansas River should provide for in the area.

We have been moving on this problem very rapidly. There was a major fish kill in the area last year which was really a disaster all the way down the river. We have achieved a $4.5 million appropriation for this clean up project, contingent upon authorization. It is our hope, Mr. Chairman, that we might be able to move S. 1275 very rapidly. I believe EPA and the Bureau of Reclamation will confirm my statement of support. Everybody believes this is something we have to do and do quickly.

[The prepared statement of Mr. Thompson follows:]

CHAIRMAN, SUBCOMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
AND
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.
1989

Mr. Chairman, and members of this distinguished Committee, my name is Charles L. Thomson, and I am General Manager of the Southeastern Colorado Water Conservancy District, with Offices in Pueblo, Colorado. I have testified before this Committee many times in the past in my capacity with the District, as well as Chairman of the Arkansas River Basin Interstate Committee, representing the States of Arkansas, Missouri, Oklahoma, Kansas and Colorado; and as Chairman of the Board of Directors of the 50 state Water Resources Congress. In each of those appearances before this Committee, I presented testimony in support of appropriations for construction and operation of essential water management projects and programs.

I appear here today in support of S 1275, introduced by your distinguished colleague, the Honorable Timothy E. Wirth, which will authorize the U.S. Bureau of Reclamation to construct, operate and maintain, the water treatment plant for the purposes of treating waters discharged from the Leadville Mine Drainage Tunnel near Leadville, Colorado. When I appeared before the Committee on Energy and Water Development on April 6, 1989, I presented testimony recommending the appropriation of $4.550 million to be used by the Bureau, to continue preconstruction activities, pumping and monitoring stations, at the Proposed Leadville Mine Drainage Tunnel. I am sure technical testimony from Bureau Officials will identify that the Congress of the United States directed the Bureau of Reclamation to assume the responsibilities for problems created by a mine drainage tunnel, which was constructed under the direction of the U.S. Bureau of Mines. I personally testified before the Committees of Congress to recommend that assignment in the late 1960's, due to the fact the Bureau of Reclamation was constructing the Fryingpan-Arkansas Project in that vicinity, and had available to them the very best engineers and construction authorities.

The Bureau of Reclamation, in cooperation with the Environmental Protection Agency and private industry, researched the water quality aspects of the problems very carefully, and constructed a Pilot Water Treatment Plant which has proven very successful. It is absolutely essential that the waters being discharged from that tunnel be improved to meet Water Quality Standards, and to reduce the levels of zinc, cadmium, iron and manganese, which continually exceed limitations. The tunnel is located at the headwaters of the Arkansas River where the waters are of a pristine nature, and it is essential that they be improved, in order that they will not contaminate tributary water further downstream. The area is also an excellent recreation area where fishing and other aquatic programs could enhance the economic stability of the area which presently is depressed.

The U.S. Bureau of Reclamation is eminently qualified to carry out this responsibility, and I respectfully urge the authorization of the project, and the appropriation of $10.700 (October 1988 price levels), plus or minus such amounts, if any, as may be required by reason of ordinary fluctuations in the construction costs, etc. It will be an investment which will return many dividends to the citizens of the United States.

Senator **Bradley**. Thank you very much, Senator Wirth, for your support and championing of this bill from that side of the table. And now I am sure you want to come back up on this side.

Senator **Wirth**. I want to come back up there and champion it from there too. I will do that.

Senator **Bradley**. There is a distinction—but in 10 years I have not been able to define what it is—between an opening statement and testimony. But you have just given testimony to the subcommittee, and we appreciate it.

Senator **Wirth**. I thank you very much.

Senator **Bradley**. Now, let's have Max Dodson and Joe Hall, if you could, take your positions. Joe, you should take your position over on one end so that we can look over to that end for the Bureau's reactions.

Again, if you could limit your testimony to five minutes so that we can get through any questions that we might have.

STATEMENT OF MAX H. DODSON, DIRECTOR, WATER MANAGEMENT DIVISION, REGION VIII, ENVIRONMENTAL PROTECTION AGENCY

Mr. **Dodson**. I am Max Dodson. I am Director of the Water Management Division in EPA Region VIII in Denver, Colorado, and I thank you for this opportunity for EPA to submit testimony on the U.S. Bureau of Reclamation's water treatment facility at the Leadville Drainage Tunnel in Colorado, as described in Senate bill 1275.

EPA and its predecessor agencies have been working for some time with the Bureau of Reclamation in solving this very serious water quality problem. There was a permit issued to the Bureau of Reclamation in 1974, and we have been working very diligently with the Colorado Department of Health and the Bureau of Reclamation to solve this discharge problem to the Upper Arkansas River.

As the Senator described the impacts, they are very severe. In fact, the Leadville Mining District impacts the Arkansas River all the way downstream, including the Gold Medal designated trout fishery that has been removed from designation over the last two years by the Colorado Department of Wildlife.

In regard to recent events in working with the bureau, we did participate in their pilot plant that was put in place. That pilot plant did work. In fact, it is the basic genesis of their design right now for this project.

We did enter into a compliance agreement with the bureau this last February. In that compliance agreement, it does indicate that the bureau will preclude any chronic or acute toxicity of the Arkansas River.

In that compliance agreement—I will just go through the dates very quickly—complete design and preparation of treatment plant specifications by August 1, 1989; commence construction of treatment plant by May 1, 1990; complete construction of major treatment units by September 1, 1991; and attain operational status of all major treatment units by June 1, 1992.

The problem associated with the Leadville Tunnel should not be confused with the Superfund site that is adjacent, commonly referred to as Yak Tunnel. Progress is also being made on that facility as well through the Superfund program.

The total area does have other sources other than the Leadville drain, but as you look at the total load that goes into the Upper Arkansas from both the Leadville drain as well the Superfund site, it has been determined that removal of those metals will, in fact, enhance the fishery considerably in the Arkansas River.

Once operational, the treatment plant will have very tight standards regarding limits of zinc, copper, lead, cadmium, silver. And we do that through what is referred to as general whole effluent toxicity, with an eye toward removing acute and chronic impacts to the receiving stream.

In summary, EPA supports this project to improve the water quality of the Arkansas River and believes that the project is long overdue. This project, along with others in the Upper Arkansas Basin, are necessary to improve the fishery in the river. We urge that the provisions of Senate bill 1275 dealing with the financing of the project be favorably received by the subcommittee.

[The prepared statement of Mr. Dodson follows:]

MAX H. DODSON
DIRECTOR, WATER MANAGEMENT DIVISION, REGION VIII
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON WATER AND POWER
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

September 14, 1989

Thank you for this opportunity for EPA to submit testimony on the U.S. Bureau of Reclamation's water treatment facility at the Leadville Drainage Tunnel in Colorado as described in S. 1275.

EPA and its predecessor agencies have been aware of the pollution of the Arkansas River in Colorado from past and present mining activities for decades. For the past 15 years, EPA has worked with the Bureau of Reclamation, Colorado Department of Health, and others to identify and develop solutions to the different sources of toxic heavy metals in the drainage. We are convinced that the construction of a water treatment plant at the Leadville Drainage Tunnel will put an end to over 40 years of toxic discharges into the Arkansas River from this major source of toxicity. This cleanup will be one of many in the Upper Arkansas drainage which are expected to return major portions of it to the "Gold Medal" fishery designation it once had in earlier years.

EPA and the Bureau entered into a Federal Facility Compliance Agreement in February of this year to implement the above corrective actions. The Agreement set forth treatment design criteria which address both general (whole effluent) toxicity and chemically measured toxicity, and provided the following compliance schedule for the construction of a water treatment facility to meet these criteria:

1. Complete design and preparation of treatment plant specifications by August 1, 1989.

2. Commence construction of treatment plant by May 1, 1990.

3. Complete construction of major treatment units by September 1, 1991.

4. Attain operational status of all major treatment units by June 1, 1992.

The Tunnel was constructed during World War II and the Korean War to drain the underground mine workings in the Leadville area. The Bureau obtained title to the Tunnel from the U. S. Bureau of Mines with the intent of using the water as part of the Fryingpan-Arkansas Water Project.

The drainage from the Tunnel contains elevated levels of toxic metals, chiefly cadmium, zinc, and iron, and has exceeded the limits of its NPDES Discharge Permit since 1977. EPA and Bureau studies have shown that the Tunnel's discharge has an adverse impact on the biota of the Arkansas River. The Tunnel contributes to the poor water quality of the Upper Arkansas River, and EPA has identified the Tunnel as a source of toxic pollutants pursuant to section 304(l) of the Clean Water Act.

The Tunnel is the subject of a January 13, 1989 citizen suit filed against the Bureau by the Sierra Club and the Colorado Environmental Coalition for past violations of its NPDES discharge permit.

The Leadville Drainage Tunnel should not be confused with the adjacent California Gulch - Yak Tunnel which is one of Colorado's fourteen "Superfund" sites and another large contributor of toxic contamination to the upper Arkansas River. Part of the separate cleanup plan for the Yak is now underway. Last November, a "surge pond" was built near the mouth of the Yak Tunnel designed to prevent surges of acid mine drainage into the Arkansas River such as occurred in 1983 and 1985.

The Bureau has been studying the Leadville Drainage Tunnel problem since 1978 and has already undertaken some steps to improve the quality of the Tunnel discharge. In 1988, the Bureau conducted a pilot plant study to test the feasibility of the treatment scheme for the Tunnel and has since begun design of a full scale facility to meet permit and water quality standards. The Bureau expects to complete design and preparation of plans and specifications very soon, and construction is scheduled to begin in May 1990.

Once operational, the plant will have to meet strict effluent limits. Plant operators will perform periodic monitoring of the effluent and the receiving stream and report the results to EPA and the Colorado Department of Health. The permit limits for zinc, copper, lead, cadmium, silver, general whole effluent toxicity, and pH will be set at levels to protect cold-water stream aquatic life.

The Bureau has taken the position that it must obtain Congressional authorization and funding for this badly needed project and is attempting to do so in this Congressional session with bill S. 1275. The Bureau estimates they will need about 10 million dollars to complete the project.

EPA supports this project to improve the water quality of the Arkansas River and believes that the project is long overdue. This project, along with others in the Upper Arkansas River Basin, are necessary to improve the fishery in the River. We urge that the provisions of S. 1275 dealing with the financing of the project be favorably received by the Subcommittee .

Senator **Bradley**. Thank you very much, Mr. Dodson. Joe Hall.

STATEMENT OF JOE D. HALL, ACTING COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON S. 1275, ACCOMPANIED BY ROGER PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION

Mr. **Hall**. Mr. Chairman, good afternoon. I have a full statement on S. 1275, Mr. Chairman, I would like to submit for the record, and I will briefly summarize that. Senator Wirth and Max have accurately described the problem and the proposed solution. And I am here today to testify in support of S. 1275.

The Leadville Mine Drainage Tunnel was obtained by the Bureau of Reclamation back in 1959. We have had a number of problems with it. We have simply not been able to comply with the necessary requirements of the permit, and in cooperation with EPA and others, have looked at a number of alternatives. We simply believe that this is the best one, and we would endorse this bill and recommend its passage.

If there are questions, I will be glad to answer them, Mr. Chairman.

[The prepared statement of Mr. Hall on S. 1275 follows:]

Statement of Joe Hall, Acting Commissioner, Bureau of Reclamation, Department of the Interior, representing the Department of the Interior before the Senate Subcommittee on Water and Power, Committee on Energy and Natural Resources on S. 1275, a bill to authorize the construction, operation, and maintenance of a water treatment plant for the purpose of treating water discharged from the Leadville Mine Drainage Tunnel near Leadville, Colorado, in order to meet water quality standards, and for other purposes.

September 14, 1989

Mr. Chairman, I am here today to testify in support of S. 1275 a bill "to authorize the Secretary of the Interior to construct, operate, and maintain a water treatment plant for the purpose of treating water discharged from the Leadville Mine Drainage Tunnel near Leadville, Colorado, in order to meet water quality standards, and for other purposes."

Leadville Mine Drainage Tunnel is located near the small mining community of Leadville in west-central Colorado. The tunnel was constructed by the Bureau of Mines during World War II for draining water emanating from the mining of strategic metals needed for the war effort. The Bureau of Reclamation accepted custody of the tunnel in 1959 with the intent of using tunnel discharges for Fryingpan-Arkansas Project purposes. Reclamation was unsuccessful, however, in obtaining rights to the water discharged from the tunnel.

The tunnel is 2.1 miles long and discharges approximately 4 cubic feet per second directly into the East Fork of the Arkansas River.

In March 1975 the Environmental Protection Agency, pursuant to the Clean Water Act, issued a National Pollution Discharge Elimination System (NPDES) permit for the tunnel because tunnel effluent is contaminated with heavy metals, e.g. cadmium, lead, and zinc, which exceed applicable limitations. The permit authorizes a discharge from the tunnel as long as certain effluent limitations are met. Reclamation has consistently been in noncompliance with the NPDES permit since it was issued.

Pursuant to the authorization in the Reclamation Authorization Act of 1976 (90 Stat 1324, 1329), Reclamation initiated a series of investigations directed at identifying corrective measures which would bring tunnel effluent into compliance with the NPDES permit. Completion of these studies, which included groundwater hydrology, impacts of plugging the tunnel, various alternative methods for treating the discharges, and construction and operation of a pilot treatment plant has provided Reclamation with a sound basis for deciding that construction of a water treatment plant and concrete lining of a portion of the tunnel are the most effective means of achieving EPA mandated water quality standards. In February 1989 Reclamation and EPA entered into a compliance agreement which includes a schedule that shows onsite construction beginning by May 1990.

Section 101 of S. 1275 authorizes the Secretary of the Interior to construct, operate, maintain a water treatment plant, including disposal of sludge produced by the treatment plant, and to install concrete lining on the portion of the Leadville Mine Drainage Tunnel needing rehabilitation.

Section 102 directs that costs associated with construction, operation, maintenance of the treatment facility be borne by the Federal Government. We believe this is appropriate since the tunnel was constructed to benefit the Nation and the contaminated effluent results from this construction. In addition, the Department of the Interior has obtained royalty agreements from about 80 percent of the known mine owners whose mines were benefited by drainage through the tunnel.

As a result of these agreements, the United States has received in payments a total of $779.12 which was paid by the Cadwell Mining Company prior to 1960. No efforts at further collections have been made because no mining is taking place in the mines covered by the agreements. We do not believe that additional efforts to collect from private sources would be successful. It is this condition that caused the Department of the Interior to not seek cost sharing of the treatment plant by the mine owners. Section 103 places responsibility for operation and maintenance of the water treatment plant with the Secretary of the Interior and provides for contracting for those services.

As a result, Section 104 authorizes to be appropriated $10.7 million (October 1988 price levels) beginning October 1, 1989, to accomplish the work described in Sections 101 through 105.

Section 105 specifies that the treatment plant authorized by S. 1275 shall be designed and constructed to treat the quantity and quality of effluent historically discharged from the Leadville Mine Drainage Tunnel.

I appreciate the opportunity to offer this statement. If there are any questions, I will be pleased to respond to them at this time.

Senator **Bradley**. Mr. Hall, now that is the kind of testimony I like to get from the bureaus.

I would like to ask the EPA to describe the water quality of the Upper Arkansas drainage?

Mr. **Dodson**. I do have some maps that I could provide.

Senator **Bradley**. Just tell us.

Mr. **Dodson**. All right. It's a river system that starts at Fremont Pass, and moves down through the Leadville Mining District, and them moves to the south, moves through the Front Range Mountains of Colorado, through Pueblo and then on into Kansas. And the Upper Arkansas Basin, again a very highly mineralized zone with a lot of inoperative, inactive mining sites—from those sites you do have, particularly during wet weather events, a discharge of heavy metals that have a detrimental impact on the biota, on the fisheries.

You also have the fact that you have continuous flowing systems. The Leadville Drain is one. Yak Tunnel is another. In terms of EPA's and the State of Colorado's analysis, as well as the bureau's, we have found that the Yak Tunnel and Leadville Drain are two of the most toxic dischargers in our entire region.

Senator **Bradley**. Are those the only two sources of mine-related contamination?

Mr. **Dodson**. There are active operations. Asarco does have a mine in the area that discharges to one of the upper tributaries of the Arkansas.

One of the real difficult problems to solve relative to the Superfund site has to deal with a non-point source. In other words, there are remedies available to treat Yak Tunnel, but there is a lot of runoff that occurs in the Leadville area. The Superfund Program is working on that problem, and we are very hopeful that a remedy will be put forth.

There are other problems associated with Tennessee Creek, Saint Keevin's Gulch. Chalk Creek, which is a tributary downstream of the Leadville Mining District, has a zinc problem that has from time to time destroyed fingerling trout and the state's major rainbow trout hatchery at Chalk Creek.

Senator **Bradley**. So, you have a lot of problems.

Mr. **Dodson**. Yes, we do. Yes, sir.

Senator **Bradley**. Have you thought about a coordinated response to these? I grant this deals with Leadville, but have you thought of a coordinated response?

Mr. **Dodson**. Yes. EPA has been considering a coordinated response for some period of time. It is complicated by the fact that there are a lot of different institutions that we have to deal with.

We are very encouraged by the fact that the Bureau of Reclamation did receive $250,000 in their special investigation fund for next year to assist in that endeavor in looking at the different sources and trying to put an institutional framework together to solve it.

We have put forth a work plan to deal with the total Upper Arkansas problem. It does involve Superfund. It involves this effort with the Leadville drain. The state has designated two tributaries for a section 319 non-point source program, and it is on their priority list for funding.

Asarco, a private enterprise, has agreed to work with EPA in doing further toxic analysis in the upper basin.

The relationship that we have now with the bureau in terms of targeting that area is very good, and we are working with them almost on a daily basis.

Senator **Bradley**. Could you provide that working plan to the subcommittee——

Mr. **Dodson**. Yes, sir, I could.

Senator **Bradley**. So that we can see what State it is in? What State is it in now?

Mr. **Dodson**. It is a draft work plan.

Senator **Bradley**. Okay, draft work plan.

How effective will the treatment plant be in cleaning up the tunnel drainage water?

Mr. **Dodson**. During the pilot operation we had two of our best technical people work with the Bureau, and we are very confident that the technology that was proven with the pilot plan is applicable to this project that they are proposing. We are very confident.

Senator **Bradley**. What are you going to do with the sludge?

Mr. **Dodson**. I think Joe would be the best individual to answer that question, but in the context of what we have done to date with the bureau, we are satisfied that they are very much alerted to the sludge problem.

Senator **Bradley**. Could the Bureau do anything more? Would you like the Bureau to do anything more?

Mr. **Dodson**. No. I think we are satisfied with their proposed project.

Senator **Bradley**. Let me ask the Bureau. Is there anything other than the Leadville Tunnel that you are pursuing in the Arkansas drainage?

Mr. **Hall**. Mr. Chairman, as Max alluded to, in the appropriations bill there was some $250,000 added for our involvement in work. If that is the way it turns out, we think we have gained a lot of expertise through our work at Leadville and we are prepared to scope that study and get started during this next fiscal year, 1990.

Senator **Bradley**. Why do you think that the bureau needs congressional authorization to comply with the Clean Water Act?

Mr. **Hall**. Mr. Chairman, there was a question of whether we had authority to undertake this activity in building a treatment plant. We felt with this question, it was simply better to clarify it and get the authority so that we did not get held up later on.

Senator **Bradley**. But generally, do you believe the bureau lacks authority to deal with clean water problems?

Mr. **Hall**. I think we will find, Mr. Chairman, that there are cases where the authority is not clear, where the solution to the problem indicates that we should do something like build a treatment plant. And we may not have the authority. As we get further into the new mission of the Bureau of Reclamation of trying to make the resources that we have more usable, we may well find we do not have authority, or at least it is unclear in several places, so we would then seek the authority.

Senator **Bradley**. Are you cataloging projects now and making those kinds of judgments pursuant to the new mission?

Mr. Hall. Mr. Chairman, we are. We are going through, and we have a number of teams, if you will, champions for our different arenas of new initiatives. And they are describing what needs to take place. For some of them, we already have authority, and work is ongoing. For others, we need to get some money to study them. And for others, we clearly need authority. So, we are cataloguing them in that regard.

Senator Bradley. This subcommittee would be very interested in your list of site-specific problems where you need additional authority, and we would also be interested in any generic solution that you might suggest to the problems.

Mr. Hall. All right, sir.

Senator Bradley. Thank you both very much.

Senator Wallop?

Senator Wallop. No, Mr. Chairman.

Senator Bradley. You will pass in the interest of time?

Senator Wallop. Having fond recollections of the Arkansas while stationed at Fort Carson, I am all for maintaining that fishery.

And my questions to Mr. Dodson as he well knows will be coming later as to why the EPA substitutes its judgment for that of the State of Wyoming in what constitutes efficient use of our money. But that's another day.

Senator Bradley. As you point out, that's a later issue.

Senator Wirth.

Senator Wirth. Mr. Chairman, I want to thank you. I thank Mr. Hall and Mr. Dodson, and especially, Mr. Dodson, I want to thank you for your good work throughout all of this Two Forks controversy in which you have had a very steady hand. And we appreciate the professionalism of the way you have approached it.

Thank you very much, Mr. Chairman.

Senator Bradley. Senator Burns.

Senator Burns. I have no questions. Thank you.

Senator Bradley. Let me just say, Mr. Hall, that I think this is a good project for the "new" Bureau of Reclamation.

Mr. Hall. Thank you, sir.

Senator Bradley. Thank you.

Now, our next project on the list is S. 486.

Senator Bentsen, welcome to the subcommittee, and I am anxious to hear what you have to say for this important project.

STATEMENT OF HON. LLOYD BENTSEN, U.S. SENATOR FROM TEXAS

Senator Bentsen. Thank you very much, Mr. Chairman.

I am particularly pleased that, with your busy schedule, you would have this hearing. This is a particularly important project to me and to my constituents.

What we have done in introducing this legislation is to help west Texans help themselves. They have a tough, severe water problem. They identified the problem, identified the source, and they have developed a solution to it. I think the Federal Government has a large stake in that solution.

In many of these projects in the past, there has been no local assistance. It has all been done by the Federal Government. And many projects that are under way right now, the majority of it is being done by the Federal Government.

In this instance, we are talking about the majority of the people of the area affected doing it, but with some Federal participation and help. This is a permanent partnership that we are talking about between the Bureau of Reclamation and the people of west Texas.

Water is really the lifeblood of any civilization and if you get out into the west, as some of the members of this committee are located in that west, they know how precious water can be.

Our problem here is that Lake Meredith is being threatened by salt pollution and the salt levels have topped 400 milligrams per liter. Now, the health and environmental agencies tell us that the tolerance point is really about 250 and you should not let it exceed that. But we see salt piling up in Lake Meredith at a rate of some 30,000 tons per year.

This bill would cut that drastically. It would authorize a system of wells to remove the salt water from its major source, and what you have is a shallow aquifer in New Mexico and dispose that water through some deep injection wells.

This is essential if the Texas panhandle is to have an adequate supply of quality drinking water for the future of the region. The Canadian River Authority and its member cities are prepared to operate and maintain the project, pay for the cost of construction, but they really need the technical expertise of the Bureau of Reclamation, its engineers in designing and building the project.

The importance of that project is underscored by the high degree of local support. The authority has estimated that part of the cost will total about $6.4 million with the Federal portion around $2 million. Now, those figures I know continue to be updated by more detailed Bureau of Reclamation estimates, but there is an obvious, heavy commitment of non-Federal funds giving a higher degree of leverage for the smaller amount of Federal money put in there than you see in most projects in the past.

We understand that the alternative to that is to let that salt water pollution continue to encroach and possibly render Lake Meredith eventually useless. And that would make, obviously, continued economic growth in that country very difficult and probably destroy the economic base in that area.

Mr. Chairman, I have been in contact with the Bureau of Reclamation on this piece of legislation. I have urged them to support it. This project improves the environment, protects it, enhances an existing project and it conserves groundwater resources. All of those things are supposed to be key parts of the new mission statement that is put out by the Bureau of Reclamation.

So, I am urging the support of this committee and would appreciate that if we can accomplish it. We are not asking for a handout. We are asking for some help.

Mr. Williams, who is the General Manager of the Authority, is with me today and his level of expertise in this matter certainly is much higher than mine. So, I will leave it to him to make a more complete explanation of the project.

But I want to thank you again for scheduling this hearing with the kind of schedule that each of you is having to put up with these days.

[The prepared statements of Senator Bentsen and Senator Gramm follow:]

Statement by
U.S. Senator Lloyd Bentsen
on S. 486
before the
Subcommittee on Water and Power
Senate Committee on Energy and Natural Resources
September 14, 1989

Mr. Chairman, thank you for scheduling this hearing and for the opportunity to present this testimony. The legislation which I have introduced will help the people of West Texas help themselves. They have a severe water problem. They have identified the source of that problem and have developed a solution. The federal government has a large stake in that solution, since Lake Meredith is a partnership between the people of West Texas and the Bureau of Reclamation. However, the people of West Texas are proposing to pay for most of the costs of that solution themselves.

Water is the lifeblood of any civilization, and water is especially scarce and valuable in West Texas. The water supply from Lake Meredith is threatened by salt pollution. Salt levels have topped 400 milligrams per liter. Health and environmental agencies generally recommend maximum chloride levels of 250 mg/L for drinking water. Salt is piling up in Lake Meredith at the rate of 30,000 tons per year.

This bill would cut that drastically. It would authorize a system of wells to remove the salt water from the major source, a shallow aquifer upstream in New Mexico, and dispose of it through deep injection wells.

This project is essential if the Texas Panhandle is to have an adequate supply of acceptable quality drinking water for the future of the region. The CRMWA and its member cities are prepared to operate and maintain the project and to pay for the cost of construction, but they need the technical expertise of the Bureau of Reclamation in designing and building the project.

The importance of this project is underscored by the high degree of local support. The CRMWA has estimated that their part of the costs will total about $6.4 million, with the federal portion totalling about $2 million. These figures will undoubtedly be updated by more detailed Bureau of Reclamation estimates. However, this is obviously a very heavy commitment of non-federal funds, giving a high degree of leverage to the small federal investment which will be required if this project is to be successful.

The people of West Texas understand that the alternative is to allow salt pollution of the region's water to continue, possibly rendering Lake Meredith useless eventually. Lack of a reliable water supply will make future economic growth very difficult, and the loss of Lake Meredith would threaten the existing economic base.

Mr. Chairman, I have been in contact with the Bureau of Reclamation regarding this bill, and I have urged them to support it. This project improves the environment, it protects and enhances an existing project, and it conserves ground water resources. All of these are supposed to be key parts of the new mission statement developed for the Bureau in recent years.

This bill also limits federal funding to only about 1/3 of the cost. Similar projects now under way involve much higher levels of federal funds, and others in past years have been done with no local funds required.

However, I am told that the official Administration position is in opposition to this bill. I am deeply disappointed by that. This is a good project and this is a good bill.

The citizens of West Texas are not asking the federal government for a handout. They are not asking the taxpayers to pay for all of this, or even most of it. They are asking the federal government to work side-by-side with them in this endeavor and to share the essential expertise which the Bureau of Reclamation has developed through years of construction projects.

Mr. Chairman, Mr. John Williams, the General Manager of the Lake Meredith project, is here with me today. His level of expertise in this matter is much higher than mine, and so I will leave it to him to make a more complete explanation of the proposal. I thank you for scheduling this hearing, and I urge the approval of this bill in order to get this vital project started.

Statement of Senator Phil Gramm
before the Committee on Energy and Natural Resources
Subcommittee on Water and Power

September 14, 1989

Mr. Chairman, I am pleased to submit this statement in support of S. 486, which will authorize the Secretary of the Interior to construct and test the Lake Meredith Salinity Control Project, New Mexico and Texas.

Lake Meredith was constructed as part of the Canadian River Project by the Bureau of Reclamation and has been operated and maintained by the Canadian River Municipal Water Authority (CRMWA) since 1968. Lake Meredith supplies water to many cities on the Texas Plains including Amarillo, Borger, Brownfield, Lamesa, Levelland, Lubbock, O'Donnell, Pampa, Plainview, Slaton and Tahoka. However, this important source of drinking water has been threatened by the great increase in the lake's salinity during recent years, especially due to the ongoing drought.

Some of the communities that receive water from the lake mix local groundwater with water from Lake Meredith in order to reduce the salinity. However, this method is expensive and not all communities have sufficient groundwater for this action.

In 1985, the Bureau of Reclamation recommended that relief wells be drilled to pump out brine to reduce the salinity of Lake Meredith. The CRMWA has agreed to this plan and has demonstrated its enthusiasm for the project by offering to incur approximately 70% of the project's total construction costs and to fully maintain the structures when the project is complete.

The strong financial commitment of the CRMWA and the communities which it serves is extremely encouraging and further demonstrates the urgent need and support for this project. When this project is implemented, it will exemplify the productivity of public-private financing.

Water is a most precious commodity in West Texas and crucial to the economic development of the area. The increasing salinity of Lake Meredith threatens to leave much of the Texas Plains without a reliable source of drinking water which could restrict future growth in the region as well as reduce the current economic base.

Therefore, Mr. Chairman, I urge the Committee to act swiftly in approving this bill and report it favorably to the full Senate.

Senator **Bradley**. Thank you very much, Senator Bentsen. I know how important this project is to you. You have spoken to me a number of times about it, and I think your presence here today indicates—if anybody has a busy schedule, you do—your presence here indicates how strongly you are interested in this project.

Senator **Bentsen**. Thank you very much, Mr. Chairman.

Senator **Bradley**. Thank you very much.

To accommodate Senator Wallop, if we could, who is here now, he would like to make a statement on the next project that we are going to hear this afternoon, the Buffalo Bill project. So, Senator Wallop.

STATEMENT OF HON. MALCOLM WALLOP, U.S. SENATOR FROM WYOMING

Senator **Wallop**. Mr. Chairman, let me thank you both for holding this hearing and having sent Committee Staff to visit that project. This is a hearing on the bill, S. 1121, to increase the amount authorized for modification of the Buffalo Bill Dam.

I also want to welcome Paul Schwieger and thank him for making the trek from Wyoming to tell the committee of our state's very significant contribution to this project.

Wyoming is particularly proud of Buffalo Bill Dam and the modification to raise the dam. When it began in 1982, Wyoming was the first and only State in the Union to engage in cost sharing on reclamation projects, and they set a standard that others must follow.

While the bill increases the Federal share of cost from $68.7 million to $80 million, the Wyoming Legislature recently increased the State's share to $52 million. So, for every Federal dollar spent, the state will spend 74 cents.

It has many diverse benefits and is multiple use at its best. Increased water storage benefits irrigators, municipal and industrial water users. The recreation benefits are outstanding. Environmentalists, hunters, conservationists, and fishermen have more water for their outdoor recreation. And finally, experts assure me that the construction of a new 4.5 megawatt generating unit could prove to be a very wise and prudent investment of State and Federal dollars.

I would ask, Mr. Chairman, that the rest of my statement be inserted in the record.

Again, thank you for holding this hearing. It is important to us. I think it is a model of Federal-State cooperation. Benefits flow to both the Federal Government and the State of Wyoming. I appreciate this hearing.

[The prepared statements of Senators Wallop and Simpson follow:]

Statement of Hon. Malcolm Wallop, U.S. Senator From Wyoming

I want to thank you, Mr. Chairman, for holding this hearing on the bill to increase the amount authorized for the modifications of Buffalo Bill Dam. Swift passage of S. 1121 is necessary to keep work at the dam on schedule and prevent future costly delays and I appreciate your responsiveness to my request for timely review by the Water and Power Subcommittee.

I would like to welcome Paul Schwieger and to thank you, Paul, for making the trek from Wyoming to tell the committee of our state's significant contribution to this project.

Wyoming is particularly proud of Buffalo Bill Dam and of this modification to raise the dam by 25 feet. When this modification began in 1982 Wyoming was the first and only state in the union to engage in cost sharing on reclamation projects. They set the standard for others to follow.

While this bill increases the federal share of costs from $68.7 million to $80 million, the Wyoming legislature recently increased the State's share to $52 million. For every federal dollar spent the State will spend 74 cents.

This is a model project with many and diverse benefits—multiple use at its best. Increased water storage will benefit irrigators, and municipal and industrial water users as they can use water from spring run-off which up till now has been lost. Environmentalists, hunters, conservationists and fisherman will have more water for outdoor recreation and conservation of fish and wildlife. Finally, experts assure me that the construction of a new 4.5-megawatt generating unit could prove to be a very wise and prudent investment of state and federal dollars.

We passed legislation for this project in 1982, but the modifications were based upon feasibility estimates made in 1972. During these last 17 years the Project has undergone changes in circumstance and improvements in design which caused the cost estimate to exceed the ceiling.

In addition, this bill authorizes construction of additional recreation facilities which must be relocated once the dam is raised. To increase the recreation benefits of the project, the federal government and the State will share (50/50) in the cost of these facilities.

The Administration fully supports this bill and the State of Wyoming has already demonstrated its firm commitment to the project. I urge my colleagues to act on this important measure without delay and I look forward to the testimony today.

STATEMENT OF HON. ALAN K. SIMPSON, U.S. SENATOR FROM WYOMING

I am very pleased that the Water and Power Subcommittee is considering S. 1121, a bill to authorize additional appropriations for the construction of the Buffalo Bill Dam and Reservoir Project. This is not a controversial piece of legislation, and I would like to thank my colleagues on this committee for their consideration and prompt approval of this important bill.

In 1982, the Buffalo Bill Dam project, which is located outside of my hometown of Cody, Wyoming, on the Shoshone River, was authorized with a cost ceiling of $106.7 million plus indexing based upon feasibility studies made in 1972. Since 1972, the project has changed by circumstances and has been improved by design. Due to these changes and improvements, the current project cost estimate exceeds the authorized ceiling for appropriations. Currently the project is 63 percent complete. It is now estimated that the existing ceiling of $115.7 million may be exceeded by $12.3 million for a total project cost estimate of $128 million.

Changes have occurred in the project as a result of improved flood forecasting techniques, which necessitated an increase in the amount of flood capacity behind the Dam. Other changes included moving the location of a planned site for a powerplant which is 4,000 feet downstream, in order to accommodate the difficult site conditions and problems associated with reservoir construction. Other improvements which will be funded by this increase in the cost ceiling include the placement of a 3-megawatt power generating unit in the Shoshone Powerplant and to meet the cost of relocating existing State park facilities which will be inundated by the reservoir pool behind the heightened dam. The addition of a 4.5 megawatt generating unit will increase the generating capability of this project, which in turn benefits both Federal Government and the State.

The Buffalo Bill Dam, modification project has been the model in the Bureau of Reclamation for Federal-State cost-sharing. In fact, it even frightens other States, because the State of Wyoming has already approved $47 million in cost-sharing for this project. The State has recently authorized an additional $5 million to help to offset the cost of the changes which I have just described. Obviously, the State of Wyoming is more than meeting its requirements. In addition, the State is providing a dollar-for-dollar State cost sharing for the relocation of State park facilities which will be inundated by the Bureau project and its modifications. Thus, the State cost-share is now at $52 million. The total ceiling increase needed would be $17 million, of which $6 million—35 percent—would be contributed by the State of Wyoming.

To repeat, these changes and modifications are brought about based on improved technology and the ability to further enhance the project in a manner which will ultimately benefit both the Federal Government and the State. The State of Wyoming is meeting its obligation dollar-for-dollar in a way never even considered by other States. The Bureau of Reclamation has worked very closely with Senator Wallop and me in preparing this legislation and in providing the necessary dollar amounts contained in it. I encourage speedy review and passage of this legislation. Delay in passage will only result in delay of the completion of the project—and that, of course, would mean that increased costs to both the State of Federal Government.

Senator BRADLEY. Thank you very much, Senator Wallop, for your obvious interest in this, and we will look forward to hearing from the Wyoming representative.

Now, if we could double-back here to S. 486. John Williams, I would like to welcome you to the subcommittee. You are the General Manager of the Canadian River Municipal Water Authority. We would like to hear the summary of your testimony. As I said at the beginning, all testimony will be included in the record in full.

STATEMENT OF JOHN C. WILLIAMS, GENERAL MANAGER, CANADIAN RIVER MUNICIPAL WATER AUTHORITY, SANFORD, TX

Mr. WILLIAMS. Thank you, Mr. Chairman. I certainly will try to abide by that rule.

I would like to call your attention today also to the presence of two of our board of directors members from the Texas panhandle: Mr. Jack Skaggs, our board president from Plainview, Texas——

Senator BRADLEY. Would you wave? There you are, Jack.

Mr. WILLIAMS [continuing]. And Mr. Stansell Clement of La Mesa, Texas who is chairman of our legislative committee. They have come up today to hold my hand and make sure that I keep this pointed in the right direction.

As previously explained——

Senator BRADLEY. Can you all hear him properly? If you are supposed to be watching him, I want to make sure you can hear. [Laughter.]

Mr. WILLIAMS. This project is intended to help us deal with a water quality problem which has developed in Lake Meredith. Lake Meredith is part of the Canadian River project which was constructed for us by the Bureau of Reclamation in the decade of the 1960's and supplies water to 11 cities in the Texas panhandle and south plains comprising a population of about 430,000 or more citizens.

Water in Lake Meredith has become mineralized to the extent that it is sometimes difficult to use. The cause of that has been identified to be a brine aquifer in New Mexico which is leaking water into the river allowing the saline water to come downstream and collect in the lake.

The cure would be to drill a well or wells into the aquifer, pump the water out to relieve the artesian pressure, and dispose of that brine by injecting it back into deep underground injection wells. This work would have to be carried out in New Mexico near the site.

The Bureau of Reclamation has studied this problem for us over a long period of time. The study started in 1970 with the Bureau taking time starting in 1972 up through 1985. So, it is time to do the work if it is ever going to be done. Each year that we delay, as Senator Bentsen pointed out, results in about 30,000 tons of salt reaching Lake Meredith.

The bill as proposed would authorize the Bureau of Reclamation to construct these facilities as a Federal reclamation project. It would require our authority to pay all of the construction costs related to the facilities—and when I say all of the costs, I am talking about the first cost, as well as the last cost—and for the Bureau of Reclamation to contribute as the non-reimbursable Federal component of cost their expense of designing and managing the construction of the project facilities. We believe that is an appropriate division of Federal and state responsibilities in this case.

Eliminating the inflow of brine in this area would result in substantial improvement of water quality to our member cities. We believe that they all support this. You should have received a number of letters from people in our area expressing support, and we hope that the committee will look favorably upon this proposed bill.

I would be happy to answer any questions that any committee member might have.

[The prepared statement of Mr. Williams follows:]

STATEMENT OF JOHN C. WILLIAMS
GENERAL MANAGER, CANADIAN RIVER MUNICIPAL WATER AUTHORITY
Concerning S. 486, to authorize the
Lake Meredith Salinity Control Project

Before the
SUBCOMMITTEE ON WATER AND POWER
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
UNITED STATES SENATE
Washington, D. C.
September 14, 1989

Mr. Chairman and Honorable Committee Members:

I greatly appreciate the opportunity to appear before you today to speak in support of S. 486, which has been introduced by Senator Lloyd Bentsen to assist us in meeting the needs of the citizens of cities in the Panhandle and South Plains of Texas. Passage of this legislation will enable us to continue the partnership with the Bureau of Reclamation which has been of such great value in the past.

An excellent description of the technical aspects of the Lake Meredith Salinity Control Project has been very ably provided by representatives of the Bureau, so I will not burden you further with those details. Instead, please allow me to use the time available to provide some information about the Canadian River Municipal Water Authority and the Canadian River Project, the benefits which will accrue from the control of salinity in Lake Meredith, and why we are here asking for your help.

The Canadian River Project, Texas was constructed by the Bureau in the decade of the 1960's to provide a municipal and industrial water supply to eleven cities in the region. The principal features of the Project include Lake Meredith which is formed by Sanford Dam on the Canadian River north of Amarillo, and a 322-mile aqueduct of concrete pipe to deliver the water to the cities. Lake Meredith contains space for 500,000 acre-feet of conservation storage, accumulation of over 60 years of sediment, flood storage, and surcharge. Recreation facilities are operated by the National Park Service as a National Recreation Area, with over 1.5 million visitors most years. Planning studies indicated that 103,000 acre-feet of water (33.5 billion gallons) could be made available to the cities each year.

The Canadian River Municipal Water Authority is the agency which was created by the Texas Legislature to contract with the Bureau for construction of the Project, and to operate and maintain the facilities after construction. We are essentially a partnership of the member cities, including Amarillo, Borger, Brownfield, Lamesa, Levelland, Lubbock, O'Donnell, Pampa, Plainview, Slaton, and Tahoka. Collectively they comprise nearly one-half million inhabitants. Practically all of our funding is derived from the sale of water to the cities under contracts which support the basic repayment contract between the Authority and the Bureau.

At the time of its signing, our contract with the Bureau was the largest repayment contract that agency had entered, providing for the repayment of over $83 million to the Federal Treasury with interest over a 50-year period. We will soon make the twenty-first payment on that obligation, and our debt has now been reduced to "only" $68 million. It will be paid in 2018.

Since assuming operation of the Project at the completion of construction in 1968, deliveries of water to the member cities have ranged from about 20 to 25 billion gallons each year. This has been extremely beneficial to the cities, even though extensive drought has prevented the Project from utilizing the original anticipated yield. However, as indicated by other testimony, poor water quality has hindered the effective utilization of this resource even further.

Original projections of the Bureau in their planning studies showed that water quality in Lake Meredith would fluctuate, with drought periods resulting in chloride concentrations (a measure of salinity) as high as 400 milligrams per liter. These projections have proven accurate, with actual concentrations reaching 402 mg/l at the end of the 1973-81 drought and remaining over 300 mg/l much of the time. When the Bureau's original studies were done in 1958-1960, the source of the saline inflow was not known -- it was assumed to be of non-point origin from wide areas within the 9,000-square-mile drainage basin and therefore not susceptible of control. We now know otherwise.

Excessive salinity greatly reduces the utility of a water supply. Water which is too salty tastes bad, causes excessive corrosion, and sometimes is considered unhealthy especially if a low-salt diet is needed. Chlorides and sulfates are presently classed as secondary contaminants by the Environmental Protection Agency, but their presence is much more noticable than some of the more toxic contaminants, and is of great concern to anyone asked to drink or use water from a salty source of supply. Therefore improvement of the quality of our water by removing the salinity is of great interest to our member cities and their citizens.

The need for this work is not new. The first study to identify the source of the brine inflow was begun in 1969, and studies by the Bureau of Reclamation were almost continuous from 1972 until they issued their Technical Report on the subject in 1985. It is time to stop studying and do the work if it is ever to be done.

We conservatively estimate that the quality of water in Lake Meredith would now be very significantly improved if the proposed salinity control facilities could have been put in place in 1981 before the end of the last serious drought. Eliminating 70% of the chloride inflow at that time would have produced chloride concentrations by now at least fifty percent improved. Water in Lake Merdith has recently been tested at 350 mg/l chlorides -- it could be at 175 mg/l or better if we could have done this work nine or ten years ago. It is more difficult to look into the future and say how quickly such improvement may be realized under future climatic conditions, but it is not difficult to see why our member cities are anxious for us to get underway. Each year of delay puts another 30,000 tons of salt in Lake Meredith.

One of the motivating forces in development of the Canadian River Project was the need to conserve the dwindling underground water resources of the region. In some cases, our member cities have returned to the use of some ground water to blend with the Lake water so as to improve the quality of their supply, thereby causing a continued drain upon the declining ground water resource. Utilization of water from Lake Meredith, a more replenishable resource, might be better stewardship. Those cities which do not have sufficient remaining ground water reserves, of course, cannot afford the luxury of managing water quality in this manner.

Our need for Federal involvement in the efforts to prevent continued inflow of saline waters into Lake Meredith may not be immediately clear. The Canadian River is an interstate stream, rising in New Mexico and flowing across the Texas Panhandle into Oklahoma. The work necessary to stop the saline inflows will have to be carried out in New Mexico. Although some benefit will accrue to New Mexico through the improvement of water quality in the River (which is now too salty to use for any purpose most of the time), most of the benefit will be received by the Texas cities which use the water. This relationship between the two States and their local agencies can most effectively be addressed through a Federal agency such as the Bureau of Reclamation, which has the expertise and experience to carry out the design and construction of the necessary facilities to the satisfaction of all parties. Senator Bentsen has responded to this need with the introduction of S. 486, and similar legislation is being considered in the House.

S. 486 provides for a local cost share of approximately 67 percent upfront. Several similar projects to effect water quality improvement have been and are being carried out with lower levels of local funding than is being proposed for this Project. In fact, some have been done with no local funding at all. In this case, however, while there is or should be a definite continuing interest on the part of the Federal Government in protecting its investment in the Canadian River Project, we believe that the proposed cost sharing arrangement is appropriate. Our member cities have expressed strong support for the project, and have shown willingness to pay their respective shares of the project cost when required. The Authority itself has adequate uncommitted reserve funds so that assistance can be provided to any city needing help.

The Lake Meredith Salinity Control Project fits precisely within the framework of the mission of the Bureau as re-defined during the last few years. The aspects of environmental improvement, protecting and enhancing an existing project, and encouraging the joint use of surface and ground water resources are all high on the list of priorities identified by the Bureau of Reclamation in their statements of purpose under the reorganization studies.

The Bill is intended to provide for the Authority to pay all construction, operation, and maintenance costs related to the proposed project, and for the Federal obligation to be limited to the Bureau's cost of performing the design and construction management functions. In no event would any construction, operation, or maintenance costs be paid by the Federal Government.

Mr. Chairman, I appreciate your attention and the interest of this Committee in the need to conserve and protect the water resources of this great nation. We look forward to your favorable consideration of S. 486. I should be happy to respond to any questions of the Committee. Thank you.

Senator **Bradley**. Thank you very much, Mr. Williams. Mr. Hall.

STATEMENT OF JOE D. HALL, ACTING COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON S. 486, ACCOMPANIED BY ROGER PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION

Mr. **Hall**. Mr. Chairman, I am pleased to report on this bill, S. 486.

Because of the unique circumstances of the specific project, the Bureau of Reclamation has no objection to enactment of S. 486 if modified to require all design and construction services provided by the bureau are made fully reimbursable within three years at current interest rates.

Federal involvement by providing the technical expertise of the bureau in this project makes good sense. The Canadian River project was constructed as a Federal multipurpose project. That investment, which totals more than $90 million, is jeopardized by a salinity problem that may be solved with a small Federal expenditure. Project sponsors would provide approximately 70 percent of the construction costs up front.

As John and the Senator have indicated, we have gone through a lot of study and analysis. It has been a cooperative effort. We believe it involves getting more out of a resource that is already there and is consistent with the Bureau's new activities.

We do have some suggested changes for clarification, Mr. Chairman, that I would submit in my testimony for the record.

[The prepared statement of Mr. Hall on S. 486 follows:]

Statement of Joe D. Hall, Acting Commissioner, Bureau of Reclamation, Department of the Interior, before the Subcommittee on Water and Power, Committee on Energy and Natural Resources, United States Senate, on S. 486, a bill to authorize the Secretary of the Interior to construct and test the Lake Meredith Salinity Control Project, New Mexico and Texas.

September 14, 1989

Mr. Chairman, I am pleased to appear before this Committee to discuss S. 486, a bill "to authorize the Lake Meredith Salinity Control Project, New Mexico and Texas."

Because of the unique circumstances of this specific project, the Bureau of Reclamation has no objection to enactment of S. 486, if modified to require all design and construction services provided by the Bureau of Reclamation are made fully reimbursable within three years at current interest rates.

Federal involvement by providing the technical expertise of the Bureau of Reclamation in this project makes good sense. The Canadian River Project was constructed as a Federal multipurpose project. That investment, which totals more than $90 million, is jeopardized by a salinity problem that may be solved with a small Federal expenditure. Project sponsors would provide approximately 70 percent of construction costs up front. They ask only for Federal support through design and construction management expertise. Thus, the Lake Meredith Salinity Control Project is distinguishable from other single-purpose municipal and industrial projects that should be fully funded by non-Federal entities.

The rural communities served by the project constitute an important segment of the economic vitality of the Texas Panhandle. Loss of a major source of water would seriously threaten the economic base of these rural areas.

The Canadian River Project, of which Lake Meredith is a part, was constructed in the mid-1960's by the Bureau of Reclamation. In addition to providing municipal water to more than 400,000 people in the Texas Panhandle, the project also provides significant flood control, recreation, and fish and wildlife benefits. The latter benefits -- multipurpose in nature -- may be threatened by increasing salinity levels.

The Canadian River Municipal Water Authority (CRMWA) assumed operation and maintenance of the project in July 1968. Since then, water delivery to the 11 CRMWA member cities has been continuous, averaging about 64,000 acre -feet annually.

Since impoundment began in 1965, Lake Meredith has experienced gradually increasing levels of salinity. In an effort to resolve this problem, several communities have initiated blending processes to mix well water with Lake Meredith water to dilute the salinity. Not all communities have the available ground water to accomplish this blending and the mixing process is expensive.

In 1972, with the support of local interests and the CRMWA, Reclamation initiated an investigation of the salinity problem. Through interpretation of hydrologic and geologic data, it was concluded that much of the salt entering Lake Meredith originates from a shallow brine aquifer. A contributing factor to salinity problems has been periodic declines in the water levels at Lake Meredith.

The aquifer is under artesian pressure and forces sodium chloride brine into the Canadian River at a point near Logan, New Mexico. Reclamation believes the most cost-effective solution to the problem is the interception of the brine at the source by well pumping and disposal by deep well injection.

Environmental analysis of the approach in 1986 resulted in a finding of "No Significant Impact."

Since the source of the natural pollution is located in New Mexico, it would be necessary to construct the project features in that state.

As proposed in S. 486, the Lake Meredith Salinity Control Project would include the following conditions:

o Authorize the Secretary to construct such principal features as production wells, observation wells, pipelines, pumping plants, brine disposal facilities and other appurtenant facilities to test the Lake Meredith Salinity Control Project in New Mexico and Texas.

o The Bureau of Reclamation would be required to manage the design and construction management of project facilities. The Secretary is authorized to enter into a contract with the Canadian River Municipal Water

Authority of Texas for such services and construction costs.

o Construction would not begin until a suitable contract has been executed by the Secretary with the Canadian River Municipal Water Authority of Texas, and until the State of New Mexico has granted the necessary permits for project facilities.

o All costs of construction of project facilities would be advanced by the Canadian River Municipal Water Authority as the non-Federal contribution for implementation of this Act. These funds would be advanced on a schedule mutually acceptable to the Canadian River Municipal Water Authority and the Secretary, as necessary to meet the expenses of carrying out construction and acquisition activities.

o All project costs for verification, design preparation and construction management would be nonreimbursable as the Federal contribution toward the Project. Such costs would be considered environmental enhancement costs by way of water quality improvement, and are estimated at approximately 33 percent of the total project cost.

o The Secretary would be required, upon entering into a mutually acceptable agreement with the Canadian River Municipal Water Authority, and upon the availability of appropriated funds, proceed with the preconstruction planning, preparation of designs and specifications, acquiring of permits, acquisition of land and rights, and award of construction contracts.

o At any time following the first advance of funds by the Canadian River Municipal Water Authority, the Authority may request the Secretary to terminate activities then in progress. Such a Request would be binding upon the Secretary.

We suggest that this section 4 (b) be clarified by addition of the following sentence: "Upon such termination, the United States is under no obligation to complete the project as a nonreimbursable development." This language would forestall the interpretation that the Canadian River Municipal Water Authority could unilaterally terminate the project and thereby make the United States responsible for its completion as a nonreimbursable cost.

o The Secretary would be required to transfer the care, operation, and maintenance of the project works, upon completion of construction and testing, to the Canadian River Municipal Water Authority or an entity mutually agreeable to the States of New Mexico and Texas. As part of the transfer, the Secretary would be required to return unexpended funds advanced for the project, assign to the Canadian River Municipal Water Authority or entity the rights to any contract in force, convey to the Canadian River Municipal Water Authority or entity any real estate, easements, or personal property acquired with the advanced funds, and provide any data, drawings or other items of value procured with advanced funds.

Reclamation does request that at Section 3.(b), 1st line, the word "verification" be deleted. This modification will make the paragraph consistent with the remainder of the Act.

Mr. Chairman, that concludes my statement. I would be pleased to answer any questions the Committee may have.

Senator **Bradley**. Thank you very much, Mr. Hall.

Let me ask you, Mr. Williams, probably the obvious question, and that is why should the bureau be involved in this project at all. Isn't this a local authority?

Mr. **Williams**. Well, of course, our project is a multipurpose project. Beyond municipal and industrial water supply benefits, it contains flood control benefits. Lake Meredith is a national recreation area operated by the National Park Service as such. There are fish and wildlife benefits associated with the projects.

And you have an $83 million investment in the original project facilities. We have made 21 payments or will soon make the 21st payment on that obligation. So, the debt is now down to about $68 million. But that is still a substantial investment.

It is an interstate project, as I mentioned earlier. The work would have to be done in New Mexico. I feel that most parties involved would be happier with the Bureau of Reclamation or some Federal agency who has the necessary expertise doing the design and overseeing the work.

In short, it seems to me that this project cries out for a cooperation between Federal, State, and local interests, and cooperation in my way of thinking means participation. Therefore, that is the basis on which the proposed language of the bill was written, and we believe it still represents the most appropriate mixture of Federal and State participation.

Senator **Bradley**. Would the deep injection project threaten any groundwater?

Mr. **Williams**. We do not believe that it would. Obviously, there will have to be some additional study and geophysical testing done to assure that the site of that well is appropriate and to be sure that none of that brine would leak back to the surface or leak into any other aquifer that might be damaged. We do not know of any other aquifer in that area right now, but there would be some additional testing required before the disposal wells are sited.

Senator **Bradley**. Could I ask the bureau? Do you know of any groundwater that is threatened by the deep injection approach?

Mr. **Hall**. Mr. Chairman, we did an environmental impact statement—I believe it was 1986—and it resulted in no significant impact as the finding of that study.

Senator **Bradley**. Do you feel confident that this will really work with this approach?

Mr. **Hall**. Mr. Chairman, I do. I believe that we have identified where the principal source of inflow of the brine solution is, and I believe we have captured the most appropriate solution of cutting that off and then injecting into this deep aquifer. And I believe we have a good shot of really making it work.

Senator **Bradley**. So, you think that the feasibility study route—you are satisfied that it will work. We do not need another feasibility study.

Mr. **Hall**. I do not believe we do, no, sir.

Senator **Bradley**. Let me ask you Mr. Williams. Will the Canadian River flows be reduced at all?

Mr. **Williams**. The amount of water anticipated to be removed by the production wells would be about 1 cubic foot per second, which is a very small portion of the annual flow of the river at that point.

Senator **Bradley**. And so, would that removal affect any interstate obligations?

Mr. **Williams**. The river at that point is covered by the interstate compact between Texas, New Mexico, and Oklahoma. That compact deals with the amount of water that can be stored on the river by the various States and does not relate to the flow of water in the river.

Senator **Bradley**. So, Mr. Hall, would it affect any interstate agreements?

Mr. **Hall**. No, sir. It is not significant enough to affect it, and probably helps the use of the water from the time you improve it until it gets to the reservoir where it is far outweighed by that improved quality.

Senator **Bradley**. I would like to ask Mr. Williams what is his understanding of the cost sharing provisions of the bill, and then if Mr. Hall disagrees with Mr. Williams' characterization, would you so state for the record? Silence will be taken as full agreement.

Mr. Williams.

Mr. **Williams**. As I understand the language of the bill, it is written to provide for the Canadian River Municipal Water Authority to pay all construction and land acquisition costs related to the project facilities. The Bureau of Reclamation would only pay, or the Federal Government through the Bureau of Reclamation would only pay the Bureau's cost to design the facilities and to manage the construction of the facilities. Operation and maintenance of the project would pass to the authority or to some satisfactory agency upon completion of the facilities without further obligation of the Federal Government.

Senator **Bradley**. However unlikely this might seem, let me put it out to you anyway. If you read section 4(b), it basically says that the Authority is not obligated to go ahead with the project. So, you could see the Federal Government putting out $2 million or $3 million, and then the Authority could decide not to go ahead. Is that your reading of it as well?

Mr. **Williams**. No, sir. My reading of it is that were we to request the Bureau of Reclamation to terminate activities, they would terminate all activities.

Senator **Bradley**. But the timing has design first. In other words, there is not cost sharing for the whole project. The Bureau does its part, and then you do your part. That is how I read it. Is that the way you read it?

Mr. **Williams**. There could be a time period during which the Bureau of Reclamation would be making expenditures before the Authority were required to advance any funds.

However, if there is a problem with that, it could either be dealt with in the required contract between the Authority and the Secretary of the Interior requiring us to put up some money before the Bureau did anything, or some other satisfactory provision could be made. I think someone has suggested that there be a straight percentage split of all costs, and we would have no objection to that.

Senator **Bradley**. Mr. Hall, do you have any——

Mr. **Hall**. That is probably the way we would handle it, Mr. Chairman, with the contract.

Senator **Bradley**. Either one of those ways?

Mr. **Hall**. Yes.

Senator **Bradley**. Mr. Williams, what is the interest rate applicable to the original project's reimbursable costs?

Mr. **Williams**. The 1960 interest rate was 2.632 percent.

Senator **Bradley**. And that is the interest rate now for the project?

Mr. **Williams**. That is still the rate applicable under our existing contract, yes, sir.

Senator **Bradley**. Would the project sponsors be prepared to pay an interest rate more similar to the current interest rates?

Mr. **Williams**. On what cost?

Senator **Bradley**. On reimbursable project costs?

Mr. **Williams**. Of the salinity control project?

Senator **Bradley**. Yes.

Mr. **Williams**. I cannot answer that directly because the arrangement that is embodied in the proposed bill was approved by our board of directors. And any modification of that which might tend to commit the Authority would require consideration of that board also.

However, basically our position is that the bill as proposed is an appropriate breakdown of costs between the Federal and local interest. And we would feel that we probably would not be willing to proceed on any other basis.

Senator **Bradley**. So, if you had anything more than 2.6 percent money, you would let the whole thing go?

Mr. **Williams**. No. What we would probably do is seek to accomplish the work on a local basis without Federal involvement. I do not know whether we could arrange that, whether our member cities would be able to pay that additional cost or whether it would be feasible for us to proceed on that basis. And I remind you, Mr. Chairman, I am speaking without authorization of our board in making that statement.

Senator **Bradley**. I appreciate your candor with the committee.

Mr. Hall, do you have anything that you would like to say about this?

Mr. **Hall**. No, I do not think so, Mr. Chairman.

Senator **Bradley**. The interest rate? It is a pretty good interest rate, wouldn't you say, if you can get it?

Mr. **Hall**. Well, it's the authorized rate, yes, sir.

We understand the bill as it was described by Mr. Williams.

And I should add, Mr. Chairman, that Mr. Williams and I were in the same class in college. So, I have been helping him a long time.

Senator **Bradley**. So, you might be able to work that out. [Laughter.]

Mr. **Hall**. Yes, we will sure try.

Our proposal is one that says we would recommend that the bill be modified to where we would, in fact, put up a part of the money and they would pay us back for the part that we put up in three years at current interest rates.

Senator **Bradley**. But the reimbursable costs are at 2.6. Right?

Mr. **Hall**. At the current interest rate——

Senator **Bradley**. What part are you saying would be the current interest rate?

Mr. **Hall**. The part that the Bureau of Reclamation would put up. It would cover the design and the construction management. If we were to put up that, our proposal would be it would be paid back at current interest rates over a three year period.

Senator **Bradley**. Well, if the subcommittee thinks this is an area that they want to spend some more time on, I am sure that we will back to you, Mr. Williams. But I do thank you very much for your testimony today on this matter and for coming all this distance. This is a project that we would like to try to find some way to be helpful with because it clearly affects a number of larger towns in west Texas, and is important to the whole regional economy.

Mr. **Williams**. Thank you, Mr. Chairman. We appreciate your having the hearing today.

Senator **Bradley**. Thank you.

I see that Senator Dole is in the subcommittee. Why don't we give him the opportunity, since I am sure he is very busy, to take the chair and to give us his view on S. 53, the Cedar Bluff project. We will bring that bill up later, if that is okay with you. It is simply to accommodate your own schedule.

STATEMENT OF HON. ROBERT DOLE, U.S. SENATOR FROM KANSAS

Senator **Dole**. I thank you very much, Mr. Chairman.

Senator **Bradley**. I might say that you have also talked to me about this on a number of occasions, and I know this is a very important item for the people of Kansas.

Senator **Dole**. I do appreciate your having the hearings. And I have talked to you about it, and that is why I wanted to be here to indicate that it is important to our state. We do have a couple of outstanding witnesses who can answer any questions that may be posed.

I thank you and Senator Burns for being here. I know this is a busy time. In fact, we have a meeting on drugs at 3 o'clock that I am presiding over. So, I would just ask that my statement be made a part of the record and also a statement by Congressman Pat Roberts who represents this particular area be made a part of the record.

Senator **Bradley**. Both statements will be a part of the record.

Senator **Dole**. The legislation, I would just summarize, that we are introducing would authorize the reformulation of the Cedar Bluff unit of the Pick-Sloan Missouri River Basin program and provide for the amendment of water service and repayment contracts. Congressman Roberts has introduced similar legislation on the House side. We introduced legislation late last year, but it was too late to have any hearings and to have any impact. We are now in a position with more information. We believe we can make a good case.

There has been a consistent decline in water supply available for irrigation from Cedar Bluff during the past 23 years and no deliveries of irrigation water have been made since 1978.

In recent years the Cedar Bluff Irrigation District has not been able to pay construction repayment installments or operation, maintenance and replacement obligations under the present contract with the Bureau of Reclamation.

In addition, the fish cultural station located below the dam, which was operated by the U.S. Fish and Wildlife Service, has been closed and is now being operated by the Kansas Department of Wildlife and Parks as a Canadian goose rearing facility. Currently the Federal Government is holding a repayment contract with the irrigation district which they are unable to collect without adverse action to the district.

The district is also unable to pay their share of the annual OM&R costs associated with the dam and reservoir. And the Federal Government has been allowing on a temporary basis the state to utilize the fish cultural station and water right for rearing Canadian geese.

So, Mr. Chairman, there was a contract signed by the state and the Bureau of Reclamation in 1987, a memorandum of understanding that clears the way for this important legislation. A contract has been negotiated contingent upon this Federal legislation and signed by the State and the Bureau after the required public comment period.

Obviously, I am here in an effort to expedite or to help persuade members of this committee that it is necessary legislation. It is not just that it is important to Kansas, but it is important particularly to people who live in that area. And it seems to me we have made an effort in Kansas. We have appropriated $364,000 in fiscal year 1989 used for conservation storage capacity in the reservoir in lieu of its repayment obligation to the United States.

We are going to have a couple of outstanding witnesses, Joe Harkins and Gary Hulett. One is a special assistant to the governor. The other is director of the Kansas Water Office. They have been following this issue from the very beginning the last several years, and they will be in a position to answer questions of members of the committee or to visit with staff if that seems to be necessary after the hearing.

Senator **Bradley**. Thank you very much, Senator Dole. I am always struck by the fact that even a minority leader would come to the subcommittee to indicate his serious interest in a project. Your interest and commitment are clear from your presence here. I am sure that the people of Kansas appreciate it.

Senator **Dole**. I have a statement from Senator Kassebaum.

Senator **Bradley**. Yes. Senator Kassebaum's statement will be in the record.

[The prepared statement of Senators Dole, Kassebaum, and Mr. Roberts follow:]

STATEMENT OF SENATOR BOB DOLE

CEDAR BLUFF RESERVOIR PROJECT REFORMULATION

SUBCOMMITTEE ON WATER AND POWER

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

MR. CHAIRMAN. I AM PROUD TO SUPPORT S. 53, NEEDED LEGISLATION THAT WOULD AUTHORIZE THE REFORMULATION OF THE OF THE CEDAR BLUFF UNIT OF THE PICK-SLOAN MISSOURI RIVER BASIN PROGRAM, KANSAS, AND PROVIDE FOR THE AMENDMENT OF WATER SERVICE AND REPAYMENT CONTRACTS.

AS YOU KNOW, PAT ROBERTS HAS INTRODUCED SIMILAR LEGISLATION IN THE HOUSE WHERE ACTION HAS TAKEN PLACE IN BOTH THE HOUSE INTERIOR AND MERCHANT MARINE AND FISHERIES COMMITTEES.

SIMILAR LEGISLATION WAS INTRODUCED LATE LAST YEAR, BUT WAS UNABLE TO RECEIVE FAVORABLE ACTION DUE TO TIME CONSTRAINTS AND ADJOURNMENT OF THE 100TH CONGRESS.

STUDIES SHOW A SIGNIFICANT FLOW DEPLETION IN THE SMOKY HILL RIVER ABOVE CEDAR BLUFF RESERVOIR. THERE HAS BEEN A CONSISTENT DECLINE IN WATER SUPPLY AVAILABLE FOR IRRIGATION FROM CEDAR BLUFF DURING THE PAST 23 YEARS AND AND NO DELIVERIES OF IRRIGATION WATER HAVE BEEN MADE SINCE 1978.

IN RECENT YEARS, THE CEDAR BLUFF IRRIGATION DISTRICT HAS NOT BEEN ABLE TO PAY CONSTRUCTION REPAYMENT INSTALLMENTS, OR OPERATION, MAINTENANCE, AND REPLACEMENT OBLIGATIONS UNDER THE PRESENT CONTRACT WITH THE BUREAU OF RECLAMATION.

IN ADDITION, THE FISH CULTURAL STATION LOCATED BELOW THE DAM, WHICH WAS OPERATED BY THE U.S. FISH AND WILDLIFE SERVICE, HAS BEEN CLOSED AND IS NOW OPERATED BY THE KANSAS DEPARTMENT OF WILDLIFE AND PARKS AS A CANADIAN GOOSE REARING FACILITY.

CURRENTLY, THE FEDERAL GOVERNMENT IS HOLDING A REPAYMENT CONTRACT WITH THE IRRIGATION DISTRICT WHICH THEY ARE UNABLE TO COLLECT WITHOUT ADVERSE ACTION TO THE DISTRICT.

THE DISTRICT IS ALSO UNABLE TO PAY THEIR SHARE OF THE ANNUAL OM&R COSTS ASSOCIATED WITH THE DAM AND RESERVOIR. THE FEDERAL GOVERNMENT IS ALLOWING, ON A TEMPORARY BASIS, THE STATE TO UTILIZE THE FISH CULTURAL STATION AND WATER RIGHT FOR REARING CANADIAN GEESE.

MR. CHAIRMAN, ON DECEMBER 17, 1987 THE STATE OF KANSAS AND THE BUREAU OF RECLAMATION SIGNED A MEMORANDUM OF UNDERSTANDING THAT CLEARS THE WAY FOR THIS IMPORTANT LEGISLATION. A CONTRACT HAS BEEN NEGOTIATED, CONTINGENT UPON THIS FEDERAL LEGISLATION, AND SIGNED BY THE STATE AND THE BUREAU AFTER THE REQUIRED PUBLIC COMMENT PERIOD.

MR. CHAIRMAN, I STRONGLY URGE THE COMMITTEE TO SUPPORT THIS NECESSARY LEGISLATION. THE KANSAS LEGISLATURE HAS MADE AN FY 1989 APPROPRIATION OF $364,000 THAT WILL BE USED FOR THE USE OF THE CONSERVATION STORAGE CAPACITY IN THE RESERVOIR IN LIEU OF ITS REPAYMENT OBLIGATION TO THE UNITED STATES.

MR. CHAIRMAN, IT IS MY PLEASURE TO INTRODUCE TWO DISTINGUISHED GENTLEMEN REPRESENTING THE STATE OF KANSAS. GARY HULETT, SPECIAL ASSISTANT TO THE GOVERNOR FOR HEALTH AND ENVIRONMENT, AND JOE HARKINS, DIRECTOR OF THE KANSAS WATER OFFICE, HAVE BEEN FOLLOWING THIS ISSUE FROM THE BEGINNING. EACH HAS A KEEN SENSE OF THE FACTS AND FIGURES AND I AM SURE WILL BE ABLE TO ANSWER ANY QUESTIONS THE COMMITTEE MAY HAVE TODAY. IT IS MY UNDERSTANDING THAT THESE GENTLEMEN HAVE A SHORT STATEMENT AS WELL FOR THE RECORD.

MR. CHAIRMAN, THIS IS NEEDED LEGISLATION. THE FEDERAL GOVERNMENT, STATE OF KANSAS AND THE AMERICAN TAXPAYER ALL COME OUT AHEAD WITH THESE CHANGES. I ENCOURAGE THE MEMBERS OF THE SUBCOMMITTEE TO SUPPORT THIS IMPORTANT BILL.

STATEMENT OF SENATOR NANCY LANDON KASSEBAUM
SUBCOMMITTEE ON WATER AND POWER
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

September 14, 1989

Thank you, Mr. Chairman and subcommittee members, for this opportunity to address an issue of great importance to the people of Western Kansas.

I am pleased to join Senator Dole in strong support for S. 53, which will change Cedar Bluff Reservoir in Trego County, Kansas, from an inactive irrigation reservoir to a recreational lake.

This afternoon Senator Dole will introduce Mr. Joseph Harkins, director of the Kansas Water Office, and Mr. Gary Hulett, special assistant to Kansas Governor Mike Hayden for health and environment. Mr. Harkins and Mr. Hulett have long been involved with the Cedar Bluff project, and I am confident they will provide you with information necessary to understand the need for passage of this legislation.

At a time when the federal government is often criticized for wastefulness, it is necessary that we make certain our resources are being used efficiently. Cedar Bluff Reservoir has been inactive for irrigation purposes since 1978 because of declining water levels.

By permitting the transfer of water rights in Cedar Bluff Reservoir from the Bureau of Reclamation to the state of Kansas, this lake can be used for wildlife preservation, recreation, and groundwater recharge. These uses would be most worthwhile and appropriate.

I believe it is important to take this simple, noncontroversial step. The details have already been worked out favorably for the Bureau of Reclamation, which built the lake, and for the state of Kansas. The Kansas Legislature last year appropriated $364,418 to purchase the water rights.

I appreciate your consideration of this bill and strongly urge your support.

STATEMENT BY CONGRESSMAN PAT ROBERTS
ENERGY AND NATURAL RESOURCES COMMITTEE
FIRST DISTRICT, KANSAS
CEDAR BLUFF LEGISLATION S. 53
September 14, 1989

Mr. Chairman, today I am privileged to offer my strong support for S. 53, which will authorize the reformation of the Kansas Cedar Bluff Reservoir unit of the Pick-Sloan Missouri Basin Program and provide for the state purchase of water services and repayment contacts.

The Smoky Hill River, above Cedar Bluff Reservoir, has continued to show a significant flow decline over the past 23 years. The result has been a consistent decline in the water supply available for irrigation. Water deliveries for irrigation were stopped in 1978.

The State of Kansas and the Bureau of Reclamation signed a memorandum of understanding that works to resolve these problems and clears the way for this legislation. I have introduced similar legislation in the House. Again, I thank you for this opportunity, and urge your positive consideration and passage of S. 53.

END

Senator **Bradley**. In addition, on the earlier testimony on the Texas project, Senator Gramm had a statement that he would like to submit to the record as well.

Senator **Dole**. Thank you again and thank you for your vote yesterday.

Senator **Bradley**. Thank you for thanking me. At least I got one thank you.

What I would like to do now is return to our original pattern which is the Buffalo Bill legislation, S. 1121. I would like Paul Schwieger to please come before us and offer us your testimony. Welcome to the subcommittee.

STATEMENT OF PAUL C. SCHWIEGER, ADMINISTRATOR, WATER DEVELOPMENT DIVISION, WYOMING ECONOMIC DEVELOPMENT AND STABILIZATION DEPARTMENT

Mr. **Schwieger**. Thank you, Mr. Chairman, and thank you for the invitation to come and testify before this committee.

I am here to testify in favor of S. 1121. This is a bill that would provide additional appropriations for Buffalo Bill Dam. The Bureau of Reclamation will probably present testimony regarding the need to raise the appropriation ceiling, and any questions as to specific project components and associated costs could best probably be directed to them.

My purpose here is to inform the subcommittee that the State of Wyoming has provided additional funds during the last legislative session to match the requested increase in the appropriation ceiling.

The 50th Wyoming State legislature in the 1989 general session provided an appropriation as follows. There is appropriated from Water Development Account I created by Wyoming Statute 41-2-124 to the Economic Development and Stabilization Board $5 million or as much thereof as is necessary to increase the state's participation in the Buffalo Bill Dam. This will be as approved by the governor in consultation with the Water Development Commission. Any uncommitted funds will revert back to this account on July 1, 1990.

Mr. Chairman, we stand ready to enter into negotiations for any necessary amendments to the existing agreement in order to participate with our matching funds.

It is also important for me to mention that we have an excellent working relationship with the Bureau of Reclamation on this project and look forward to final completion of the work. If I may deviate a little bit, our working relationship actually extends beyond specific project component work. We have worked out some sticky problems, environmental problems, that have occurred on this project with the Wyoming Game and Fish Department I believe. We have had an excellent working relationship across the board with the environmental community, as well as with my end of the thing which is getting the project built.

Therefore, we respectfully would request your favorable consideration on S. 1121, and I thank you.

I would be happy to answer any questions.

[The prepared statement of Mr. Schwieger follows:]

STATEMENT OF

PAUL C. SCHWIEGER
ADMINISTRATOR, WATER DEVELOPMENT DIVISION
WYOMING ECONOMIC DEVELOPMENT AND STABILIZATION DEPARTMENT

BEFORE THE UNITED STATES SENATE SUBCOMMITTEE ON WATER AND POWER COMMITTEE ON ENERGY AND NATURAL RESOURCES ON SENATE BILL 1121 (ADDITIONAL APPROPRIATIONS FOR BUFFALO BILL DAM).

GOOD AFTERNOON MR. CHAIRMAN AND SUBCOMMITTEE MEMBERS.

I AM HERE TO TESTIFY IN FAVOR OF S.1121, A BILL THAT WOULD PROVIDE ADDITIONAL APPROPRIATIONS FOR BUFFALO BILL DAM.

THE BUREAU OF RECLAMATION HAS PRESENTED OR WILL PRESENT TESTIMONY REGARDING THE NEED TO RAISE THE APPROPRIATION CEILING AND ANY QUESTIONS AS TO SPECIFIC PROJECT COMPONENTS AND ASSOCIATED COSTS CAN BE BEST ANSWERED BY THEM.

MY PURPOSE IS TO INFORM THE SUBCOMMITTEE THAT THE STATE OF WYOMING HAS PROVIDED ADDITIONAL FUNDS DURING THE LAST LEGISLATIVE SESSION TO MATCH THE REQUESTED INCREASE IN THE APPROPRIATION CEILING.

THE FIFTIETH WYOMING STATE LEGISLATURE IN THE 1989 GENERAL SESSION PROVIDED AN APPROPRIATION AS FOLLOWS:

[BUFFALO BILL DAM] THERE IS APPROPRIATED FROM WATER DEVELOPMENT ACCOUNT I CREATED BY W.S. 41-2-124(A)(I) TO THE ECONOMIC DEVELOPMENT AND STABILIZATION BOARD FIVE MILLION DOLLARS ($5,000,000.00) OR AS MUCH THEREOF AS IS NECESSARY TO INCREASE THE STATE'S PARTICIPATION IN THE BUFFALO BILL DAM AS APPROVED BY THE GOVERNOR IN CONSULTATION WITH THE WYOMING WATER DEVELOPMENT COMMISSION. UNCOMMITTED FUNDS UNDER THIS SUBSECTION SHALL REVERT TO WATER DEVELOPMENT ACCOUNT I ON JULY 1, 1990.

WE STAND READY TO ENTER INTO NEGOTIATIONS FOR ANY NECESSARY AMENDMENTS TO THE EXISTING AGREEMENT IN ORDER TO PARTICIPATE WITH OUR MATCHING FUNDS.

IT IS ALSO IMPORTANT FOR ME TO MENTION THAT WE HAVE AN EXCELLENT WORKING RELATIONSHIP WITH THE BUREAU OF RECLAMATION ON THIS PROJECT AND LOOK FORWARD TO FINAL COMPLETION OF THIS WORK.

I THEREFORE REQUEST YOUR FAVORABLE CONSIDERATION ON S.1121.

THANK YOU.

I WOULD BE HAPPY TO ANSWER ANY QUESTIONS THAT YOU OR THE MEMBERS OF THE SUBCOMMITTEE MIGHT HAVE.

Senator **Bradley**. Thank you very much, Mr. Schwieger.

Joe Hall.

STATEMENT OF JOE D. HALL, ACTING COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON S. 1121, ACCOMPANIED BY ROGER PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION

Mr. **Hall**. Mr. Chairman, I have a statement, and I have a full statement for each of these five, Mr. Chairman, that I would summarize.

Senator **Bradley**. Each of your full statements will be submitted to the record.

Mr. **Hall**. Thank you, sir.

I am here to testify in favor of S. 1121, the Buffalo Bill Reservoir.

The legislation would increase the Federal appropriation ceiling on the project to $80 million, an increase of about $11.3 million. This increase is necessary if Reclamation is to accomplish the following three objectives.

One, to increase the Federal share of project costs by that $11.3 million to a total of $80 million. This increase is needed to cover changes and improvements in the project plan which have occurred since feasibility studies were completed in 1972.

Second, authorize the construction of an additional 4.5 megawatt generating unit which will bring total new generation at the project to 25.5 megawatts.

And third, authorize the Secretary to participate with the State of Wyoming to more fully develop the recreational potential of the project.

That completes my statement, Mr. Chairman.

[The prepared statement of Mr. Hall on S. 1121 follows:]

Statement of Joe Hall, Acting Commissioner, Bureau of Reclamation, Department of the Interior, before the Senate Subcommittee on Water and Power, Committee on Energy and Natural Resources on S. 1121, a bill to authorize additional appropriations for the modifications of the existing Buffalo Bill Dam and Reservoir, Shoshone Project, Pick-Sloan Missouri Basin Program, Wyoming

September 14, 1989

Mr. Chairman, I am here today to testify in favor of S. 1121, a bill "To authorize modifications and additional appropriations for the construction of the Buffalo Bill Dam and Reservoir, Shoshone Project, Pick-Sloan Missouri Basin Program, Wyoming."

This legislation would increase the Federal appropriation ceiling on the project to $80 million, an increase of about $11.3 million. The increase in ceiling is necessary if Reclamation is to accomplish the three objectives that I will describe momentarily.

The modifications to the Buffalo Bill Dam project were authorized on October 12, 1982, with an appropriation ceiling of $106,700,000 (October 1982 price levels) including non-Federal cost sharing. By the end of this fiscal year when the project will be about 60 percent complete, it is estimated that the indexed ceiling of $116 million will be exceeded by about $17 million of which $6 million will be provided by additional cost sharing by the State. The State of Wyoming is a cost-sharing partner in the project and initially planned to contribute $47 million as its share of project costs. In 1989, the State increased its contribution by $5 million for additional work at the project, plus an additional $1 million through the Wyoming Recreation Commission for recreational facilities at Buffalo

Bill State Park. While the recreational facilities are being 50-50 cost shared, the State will be paying about 40 percent of the total cost of the Project.

In addition to increasing the water storage and power generation capacities of Buffalo Bill Dam, the modification project is being constructed to provide benefits for fish and wildlife resources. Fish screens have been incorporated into both the North Fork and South Fork dust abatement dikes. The screens will prevent the passage of rough fish from the dust abatement ponds to the reservoir and prevent trout from being diverted from the river into the impoundment.

Waterfowl nesting islands are being constructed in the area inundated by the South Fork dust abatement pond. A 2-acre wetland for fish and wildlife habitat is being constructed in the Diamond Creek area to replace the Irma Flats ponds that will be inundated by the enlarged reservoir.

Reservoir boundary fencing is being constructed to enable reservoir lands to be managed according to planned uses. When completed, the fencing will significantly improve wildlife and wetland values throughout the reservoir area.

The increase in the Federal appropriation ceiling authorized through passage of S. 1121 will enable these activities to continue to completion.

S. 1121 will accomplish three objectives:

o Increase the Federal share of project costs by about $11.3 million to a total of $80 million. The increase is needed to cover changes and improvements in the project plan which have occurred since feasibility studies were completed in 1972.

o Authorize construction of an additional 4.5-megawatt generating unit which will bring total new generation at the project to 25.5 megawatts. Funds for construction of this additional generating unit would be requested only if a market analysis of this resource shows it to be marketable and cost effective. The Western Area Power Administration recently completed a study at Reclamation's request, which is under review.

o The State of Wyoming wishes to more fully develop the recreational potential of the modified project and is proposing to construct new recreational facilities beyond what was authorized in 1982. The cost of these new facilities would be shared equally by the State and the Federal Government, and S. 1121 authorizes the construction of these additional recreational facilities and the $1 million Federal share of the costs of these facilities is included in the revised project appropriation ceiling.

Completion of the Project is scheduled for in 1992. However, if the Federal appropriation ceiling is not increased by October 1, 1989, project completion could be delayed. Important contracts scheduled for award in early fiscal year 1990 would be postponed, further increasing the cost of the project. The State of Wyoming supports this legislation and we believe enactment of this legislation will enable the Federal Government to meet its commitments as a cost-sharing partner.

If there are any questions, I would be pleased to answer them at this time.

Senator **Bradley**. Thank you very much, Mr. Hall.

My basic sense of this project is that it is an unusually good project. It seems to me that you are squeezing greater benefits out of an existing project. The cost sharing arrangement is exemplary. You have done an excellent job on fish and wildlife mitigation. I think it is a really outstanding project.

There is one aspect of it, though, that I just want a little clarification on, and that is, what is your understanding, Mr. Hall, about the Federal Government paying any share of the costs to relocate the Buffalo Bill Boat Club? Do you know anything about that?

Mr. **Hall**. Mr. Chairman, my understanding is that we are not paying any. Mr. Roger Patterson who you have introduced, is here with me. I would ask him if that is correct.

Mr. **Patterson**. That's correct.

Senator **Bradley**. You are not paying any?

Mr. **Patterson**. Yes.

Mr. **Hall**. I do appreciate your comments about the degree of cooperation, and I would second that from our standpoint not only Federal and State, but with both the water, power, fish and wildlife and recreation interests have really been exemplary.

Senator **Bradley**. Mr. Schwieger?

Mr. **Schwieger**. Mr. Chairman, to respond, to the best of my knowledge, the boat club is being relocated. They were in there under a lease agreement I think, and they are probably paying their own relocation costs.

I think the Wyoming Recreation Commission, which is the land administering function of State government that is on the reservoir, is probably providing some facilities. These facilities will probably be charged back and they will be a part of the recreational package end of this.

Senator **Bradley**. Could you describe for the record what is the boat club?

Mr. **Schwieger**. Well, the Bighorn Basin Boat Club is a private organization.

Senator **Bradley**. That is the correct name for the Buffalo Bill Boat Club? It is called the Bighorn Basin Boat Club?

Mr. **Schwieger**. I believe so.

Senator **Bradley**. Okay.

Mr. **Schwieger**. At any rate, they have a private membership. They have some trailer hookup facilities I believe for housing and some boat docks, and that is about it I guess there.

I do not know them as a concessionaire operator on the reservoir. They do not have any interest in selling gasoline or concessionaire items to the public.

Senator **Bradley**. Mr. Hall, just for the record, what portion of the Federal contribution of the project will be reimbursed, and by whom and at what interest rate?

Mr. **Hall**. Mr. Chairman, may I provide that for the record—the percentage?

Senator **Bradley**. Yes, please. You may provide it for the record. Try to come to future hearings with the basic information, have them on a chart.

[The information referred to follows:]

The allocation for the Buffalo Bill Dam Modification represents the total cost of the modification including revenues provided in the increased appropriation cost ceiling in S. 1121.

Buffalo Bill Dam Modification Project, Wyoming
Cost Allocation and Cost Sharing

	TOTAL ALLOCATED CONSTRUCTION COSTS ($1,000)	%	ALLOCATION OF STATE FUNDS ($1,000)	%
Power	56,569	42.9	23,469	45.2
Municipal and Industrial Water	30,241	22.9	12,798	24.6
Recreation	4,487	3.4	---	---
Fish and Wildlife	661	0.5	---	---
Highway Improvement	2,793	2.1	1,115	2.1
Environmental Quality	36,629	27.7	14,618	28.1
Miscellaneous	620	0.5	---	---
TOTALS:	132,000	100.0	52,000	100.0

The above allocation is the most recent estimate for the Buffalo Bill Dam Modification Project and includes a tabulation of the cost sharing arrangements by the State of Wyoming. After deducting cost sharing, the Federal share of the investment is $80 million of which 65 percent ($52.2 million) will be repaid at approximately 11 percent interest.

Federal costs associated with development of power facilities will be repaid in full by the Pick-Sloan Missouri Basin Program power revenues. Federal costs associated with municipal and industrial usage will likewise be repaid in full by the State of Wyoming. A separate agreement is being developed with the State of Wyoming to provide $1 million for cost sharing on recreation facilities. The Federal share of the remaining facilities will be nonreimbursable. For the Committee's record, we have also enclosed a copy of Western Area Power Administration's analysis of the Spirit Mountain Powerplant, a proposed feature of the Buffalo Bill Dam Modification Project.

Mr. Hall. All right, sir. I have it if you want to give me a minute.

Senator Bradley. No, that's okay. I'm glad you have it there. Maybe you can look at it and by the end of the hearing, you could just tell us for the record.

Let me ask you, Mr. Hall. What has been done here to provide waterfowl habitat is really quite interesting. And it is my understanding that similar steps have been taken at Canyon Ferry Reservoir in Montana, Senator Burns. I would like to know whether the Bureau has conducted a comprehensive survey of similar habitat creation opportunities at other Bureau facilities. I think your achievement here merits a look for other opportunities.

Mr. Hall. Mr. Chairman, I appreciate that, and let me answer it in two parts.

One is, you are right, whenever we have an opportunity to do something like at Canyon Ferry or one of our other projects, at the same time, if something is changing, we look and see what the fish and wildlife opportunities and wetland enhancement might be. That is just part of the new initiatives that we are taking.

In a more comprehensive way, we are looking at all of our facilities in a resource management direction, and we will have a formalized program for that. That will probably take a number of years.

And were you asking me about how much that would cost?

Senator Bradley. No. I was saying you ought to take a look at what they have done here see if there are other projects throughout the West that might be amenable to the same kind of waterfowl habitat creation.

Mr. Hall. All right, sir. And we do intend to do that.

Senator Bradley. It seems to me that this is consistent with the Bureau's new mission.

Mr. Hall. It is. It is very consistent with it. And we have a resource management plan, objective, that we will do project by project, but in the interim, if opportunities come up, Canyon Ferry or wherever, we will look at those opportunities on a case-by-case basis.

Senator Bradley. Do you see opportunities to provide benefits for things other than waterfowl? Big game? Do you, Mr. Schwieger?

Mr. Schwieger. Mr. Chairman, yes. As a matter of fact, I believe the Game and Fish has been approached by the Bureau requesting them to administer additional acres of land that have no recreational benefit as far as the Recreation Commission is concerned. And I also understand that Game and Fish has probably backed away from that at this time, but the offer has been made by the bureau for them to administer additional habitat for deer, large game animals.

Senator Bradley. Well, I would encourage you to pursue that.

One last question. Then, Senator Burns, if you have any questions, I would call on you.

As I understand it, when this improvement is made—enlargement—that a lot of the flooding is going to hit mature trees. Have you given any thought to mitigation efforts for the trees?

Mr. **Schwieger**. The trees that exist around the boundary of the reservoir were pretty much naturally seeded cottonwood trees. It is in a treeless area as it stands. The fact that the trees exist is the fact that the reservoir is there providing enough moisture for them.

And the Recreation Commission—we had some lengthy debates with them over tree planting. As a part of the like and kind relocation of inundated facilities, landscaping will be planting trees as part of a landscaping program. We will probably be eligible and be paid for.

Senator **Bradley**. Well, let me encourage you. I would like to see the fish and wildlife efforts on a fast track, and I am sure you would too. Here you have a great project, a real showcase and model. Do you get the message, Mr. Hall?

Mr. **Hall**. I get the message, Mr. Chairman. Thank you.

Senator **Bradley**. Thank you very much, Mr. Schwieger.

Senator Burns.

Senator **Burns**. I have no questions on this matter. I am very familiar with the reservoir and the Buffalo Bill Dam. I have spent a lot of happy hours down there fishing, and it is a tremendous project. I think they have everything pretty well in hand down there.

Senator **Bradley**. Well, if there are no other questions from the subcommittee, let me just ask you one more.

If we are serious about this fish and wildlife, would it be possible do you think to earmark a very small part, but nonetheless some of the revenues from power production and this facility for Fish and Wildlife?

Mr. **Hall**. Well, Mr. Chairman, the power revenues for many years in the projects in the west have been a paying partner in the success of those projects. I believe they have been a willing participant in everything from construction of the projects to support of environmental impact statements and the portion of those costs that they share. I am not prepared today to suggest that they would pay any more.

Senator **Bradley**. You might want to take a look at that and let us know if you have any further thinking.

Mr. **Hall**. All right, sir.

Senator **Burns**. Would the Senator yield on that point?

Senator **Bradley**. Sure.

Senator **Burns**. Knowing the area down there, I do not think you have to commit any funds for that specific purpose. It just makes common sense to me that you are out there on a dry plain, and those cottonwood trees are going to reseed themselves. And they are the fastest growing thing down there. In fact, sometimes you have to get rid of the damn things. But you are out there in country which is not going to be impacted.

I also think that the fish and the wildlife will pretty much regenerate without any specific dollars being spent.

Senator **Bradley**. Thank you very much, Mr. Schwieger, for your testimony. I am sorry you had to come all this way for such a brief appearance, but you can go home and say that you were successful.

Mr. **Schwieger**. Thank you, Mr. Chairman.

Senator **Bradley**. Now, if we could have the witnesses for S. 53, Joe Harkins and Gary Hulett. Welcome to the subcommittee, gentlemen. If you could limit your presentation to 5 minutes each, then we can ask a few questions and move on to the Lake Andes-Wagner bill.

STATEMENT OF JOSEPH F. HARKINS, DIRECTOR, KANSAS WATER OFFICE, TOPEKA, KS

Mr. **Harkins**. Thank you, Mr. Chairman. My name is Joe Harkins. I am director of the Kansas Water Office, and I am accompanied by Dr. Gary Hulett who is special assistant to the Governor, Mike Hayden, for Health and Environment. We are here today in support of S. 53 on behalf of the State of Kansas.

Cedar Bluff Reservoir was originally constructed to provide four major benefits: irrigation, fisheries, flood control and recreation. If you evaluate the project today in terms of its original project objectives, it does not look very good.

For example, the project was completed in 1951 and filled shortly thereafter. The irrigation district was formed in 1958. The first irrigation water was delivered in 1963. Inflows began to decline in 1965. The lake level began to decline in 1965 also. Delivery of irrigation water ceased in 1978, 11 years ago.

The U.S. Fish and Wildlife Service fish hatchery has been abandoned and is now being used partly by the State of Kansas for a goose rearing facility.

The current conservation pool at 2099.55 represents approximately 11 percent of the design capacity of the project.

Theoretically the flood control portion of the project has been improved because the 89 percent of the originally designed conservation pool is now empty and available for flood control purposes.

The immediate and long-term value of a water body of approximately 16,000 surface acres in the semi-arid western part of the State of Kansas—and, Mr. Chairman, there is a map on the back of my testimony, and you can see that Cedar Bluff Reservoir unit is the largest water body in the western part of the State of Kansas.

This project has significant potential value for wildlife and recreation benefits in our State, in that part of the State. And that is why we are anxious to see this bill passed, removing the cloud of uncertainty over the future use of this reservoir so that we can begin investing our resources in making it a permanent recreation and fisheries facility in western Kansas.

Mr. Chairman, in the interest of time, I will dispense with the reading of the rest of my testimony, and I will ask Dr. Hulett to make a couple of comments on behalf of Governor Hayden.

[The prepared statement of Mr. Harkins follows:]

Testimony on S. 53
to the
Subcommittee on Water and Power of the
Senate Energy and Natural Resources Committee

Presented by
Joseph F. Harkins, Director
Kansas Water Office

September 14, 1989

Mr. Chairman, members of the Committee, my name is Joe Harkins. I am Director of the Kansas Water Office. I am accompanied today by Dr. Gary Hulett, Special Assistant to Governor Mike Hayden for Health and Environment. We are here today in support of S. 53 on behalf of the State of Kansas.

Cedar Bluff Reservoir was originally constructed to provide four major benefits; irrigation, fisheries, flood control and recreation.

If you evaluate Cedar Bluff today in terms of the original project objectives it does not look very good. For example:

1. The project was completed in 1951 and filled shortly thereafter.
2. The irrigation district was formed in 1958.
3. The first irrigation water was delivered in 1963.
4. Inflows began to decline in 1965.
5. The lake level began to decline in 1965.
6. Delivery of irrigation water ceased in 1978 - 11 years ago.
7. A U.S. Fish and Wildlife Service fish hatchery has been abandoned - part of it is being used as a goose rearing facility by the state.
8. The current conservation pool level is at 2099.55 which represents approximately 11 percent of the designed capacity.

The flood control benefit has theoretically improved in that 89 percent of the conservation pool can now be used for flood control if a flood similar to the one in 1951 occurs in the future.

The immediate and long-term value of a water body of approximately 1,600 surface acres in the semiarid western Kansas for fish, wildlife and recreation is significant and the State of Kansas is willing to assume a portion of past and future costs of the project in order to secure this benefit on a permanent basis.

On December 17, 1987, Governor Mike Hayden signed a Memorandum of Understanding with the U.S. Department of Interior, Bureau of Reclamation, agreeing to the principles of the proposed partnership between the State of Kansas and the United States Government in the management of the Cedar Bluff Project.

During the 1987 session of the Kansas Legislature, the Governor proposed and the Legislature appropriated $365,424 for the purpose of implementing the proposed joint venture.

In February of 1989, Governor Hayden signed a contract with the U.S. Department of Interior obligating the state to the principles of the original Memorandum of Understanding. The contract is of course, conditioned upon passage of the legislation you are considering today.

This project is designed to deal with a complex problem. It was not designed overnight. There are many interested parties and, what's more, they all agree the plan is a prudent course of action and they support it.

The Memorandum of Understanding was negotiated over a period of approximately one and one-half years. Every meeting of the negotiating team was publicized and open to the public.

Although we had the active participation of the key parties during negotiations, including the Bureau of Reclamation, the Kansas Department of Wildlife and Parks, the Kansas Water Office, the Kansas Division of Water Resources, the Kansas Water Authority, the cities of Hays and Russell and the Cedar Bluff Irrigation District, a public meeting was also conducted to assure the plan was well known to the general public. And, as I said earlier, our legislature ultimately considered the plan and acted to appropriate the funds needed for implementation.

The remaining portion of my testimony outlines the specific problems the plan is designed to solve, the concept, costs and benefits. In the interest of time, I will not read that portion of my testimony today.

Mr. Chairman, this is a proposal that touches many interests. It is well planned and is a good deal for the State of Kansas, the Irrigation District, the United States Government and, most importantly, the people of Kansas. We urge your favorable action on the bill.

PROBLEM

The following problems related to operating the Cedar Bluff Project under significantly depleted inflow conditions have been identified.

1. No deliveries of irrigation water have been made to the district since 1978.
2. The district has not been able to pay construction repayment installments, or operation, maintenance and replacement obligations under the present contract with the Bureau of Reclamation in recent years.
3. The fish cultural station, located below the dam and operated by the U.S. Fish and Wildlife, has been closed and is now operated by the Kansas Department of Wildlife and Parks as a Canadian goose rearing facility.
4. Without (1) water deliveries to the district, (2) water releases to the river for the City of Russell and (3) water utilized by the fish cultural station below the dam, the Smoky Hill River and alluvial groundwater system has not been recharged by streamflows, or return flows, that historically have been available. (This has in part been responsible for critical depletions at city and rural water district alluvial groundwater supply facilities.)
5. The Kansas Department of Wildlife and Parks is concerned about protecting and utilizing the state's investment in the fishery in Cedar Bluff Reservoir and wildlife management associated with the land area around the reservoir. It is also concerned about protecting and utilizing the state's investment in recreation facilities at the Cedar Bluff State park areas down to the water level actually in the reservoir.

CONCEPT

1. The existing flood control aspects of the project would be unchanged, except for additional flood storage in the "joint-use pool" as described below.
2. The lower 19.1 feet of the existing conservation pool (consisting of 29,739 acre-feet between elevation 2090.0 and elevation 2109.1) would be a "designated operating pool" (2,700 acre-feet) for the City of Russell's municipal water supply; (5,400 acre-feet) for artificial recharge

(environmental, domestic, municipal, industrial and irrigation); and (21,639 acre-feet) for fish, wildlife and recreation. (See Exhibit 1)

3. The "designated operating pool" would be operated as a single pool with the three uses equally sharing inflows and losses, so that a continuous accounting is maintained on the amount of water that is available for Russell municipal water supply; for artificial recharge and for fish, wildlife and recreation. The state intends to operate the fish, wildlife and recreation part of the "designated operating pool" for the benefit of recreation activities and fisheries management at Cedar Bluff Lake and for minimal downstream releases for goose rearing activities and stream environment preservation.

4. The City of Russell's existing water storage right and contract with the Bureau of Reclamation would be unchanged, including the continuance of the existing accounting procedure for sharing of inflows and losses at Cedar Bluff Reservoir.

5. Subject to Congressional approval of the reformulated Cedar Bluff Unit, the district will be relieved of its contractual obligations under Contract No. 0-07-70-W0064. After this approval, the district will disband its operation as an irrigation district under Kansas law.

6. The upper 34.9 feet of the existing conservation pool (consisting of 147,090 acre-feet between elevation 2109.1 and elevation 2144.0) would be a "joint-use pool" for flood control, for water supply and for fish, wildlife and recreation. When the "joint-use pool" is empty, the operation, maintenance and replacement costs would be assigned to flood control and if water should accumulate into the "joint-use pool," the operation and maintenance costs would be paid by the state based on the highest level of water in the "joint-use pool" during the proceeding calendar year. Any income from the sale of water from the "joint-use pool" would be shared equally between the Bureau of Reclamation and the state.

7. The Kansas Department of Wildlife and Parks would continue to administer the reservoir lands and lake areas for fish and wildlife management purposes according to existing agreements and to operate the Cedar Bluff State Park areas down to the water level actually in the reservoir.

8. The state will pursue its evaluation for the formulation of an Intensive Groundwater Use Control Area in the river alluvium above Cedar Bluff Reservoir.

9. The Bureau of Reclamation will conduct "Safety-of-Dams" studies over the next few years concerning safety-of-dams issues. The contract for sale of storage to the state will acknowledge these safety-of-dams studies, and allow both parties to have the option to invalidate the sale contract, should that be determined as the best solution to the safety-of-dams problems.

BENEFITS

1. State recovers an existing water right and reallocates it to a set of more beneficial uses.
2. State investments in fisheries and parks is secured by establishing a feasible operating pool level range over the long-term (thus, assuring the long-term use of the project by the people of Kansas).
3. Environmental preservation of the alluvium downstream will be possible (including the City of Hays recharge demonstration project).
4. The irrigation district landowners will be released of their repayment obligation for a project that will not furnish the needed water supply.

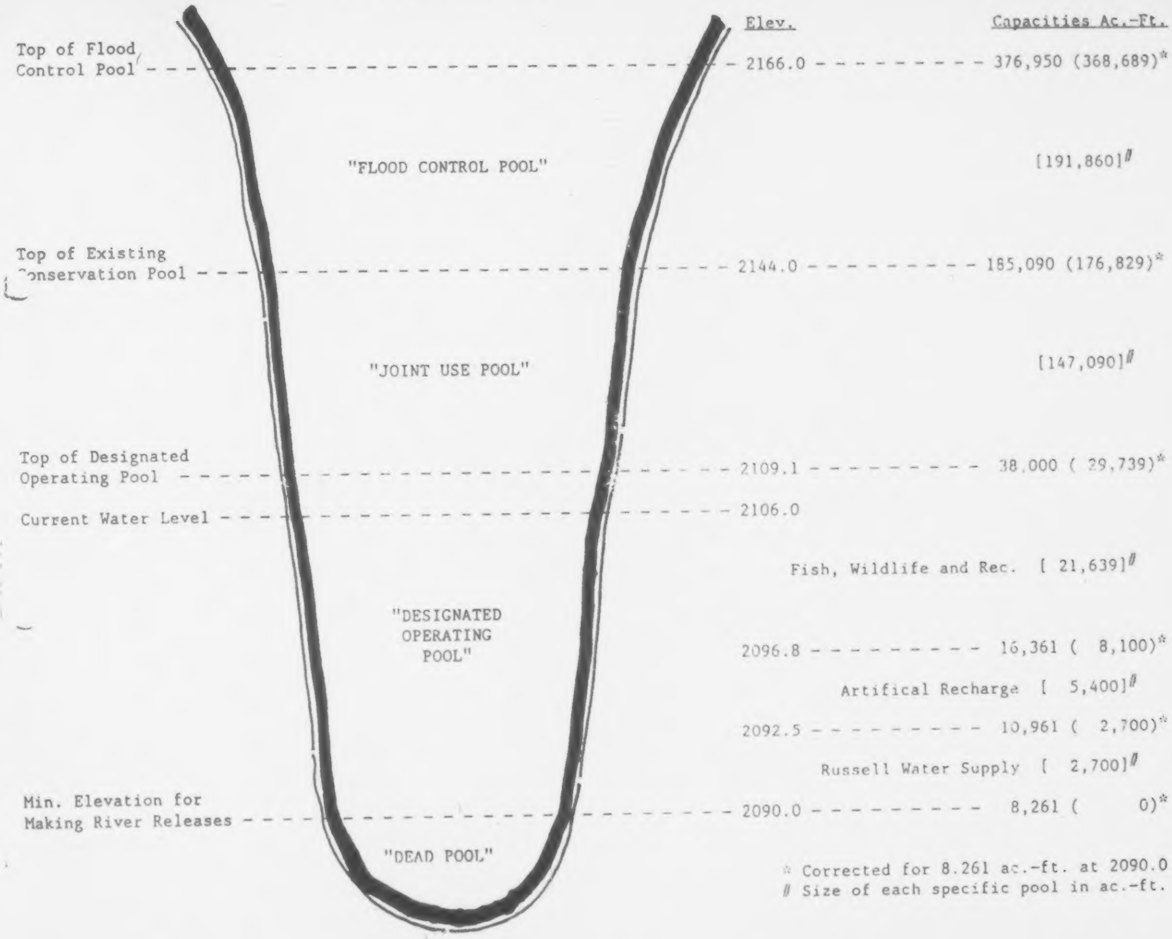
COSTS

1. Payment to the federal government: $365,424

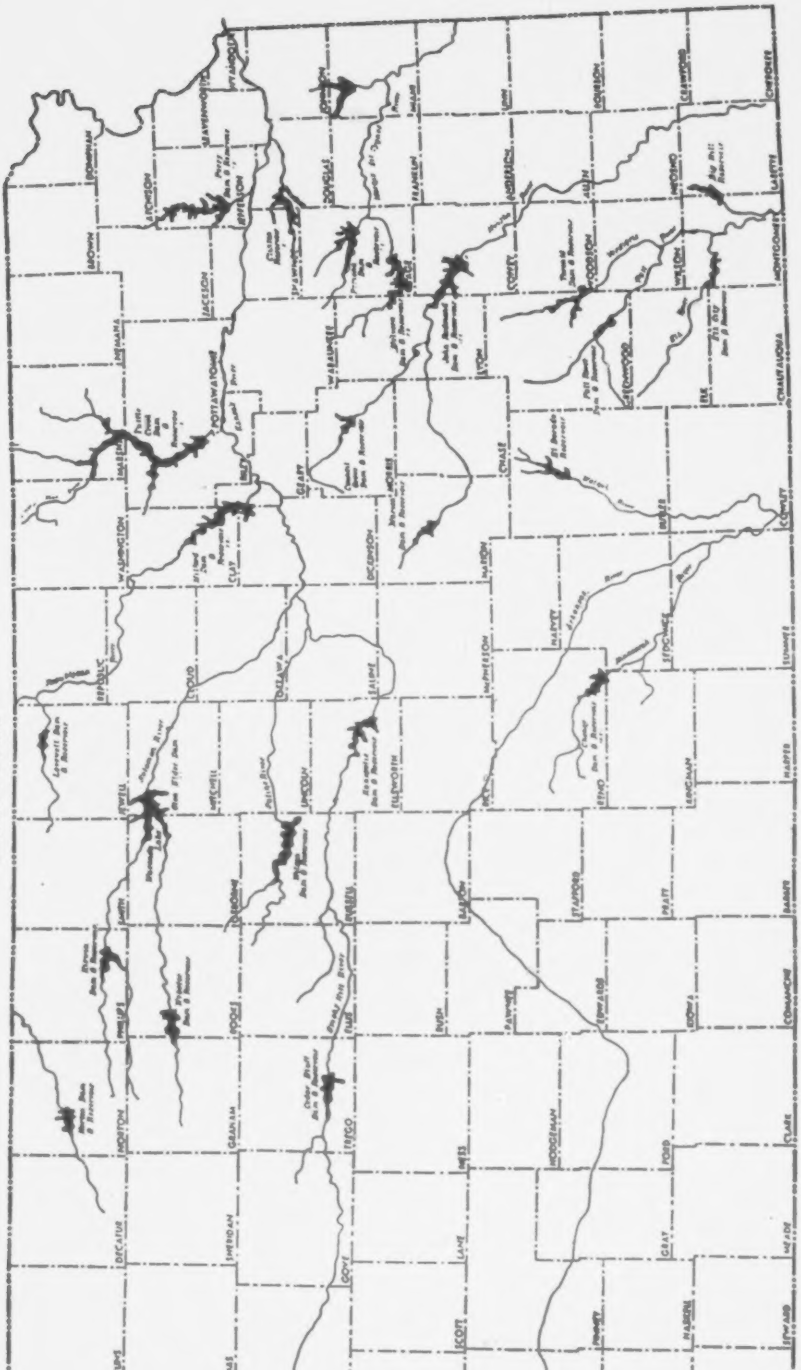
   Provide state control of the designated operating pool.
2. Assume share of annual operation and maintenance costs (7.3 percent of total) with minimum of $15,000 annually.
3. States objective would be to pass the costs of the artificial recharge portion back to beneficiaries (approximately $73,000) and the prorated share of operation and maintenance (approximately $3,000 of the $15,000 minimum). The City of Hays has passed a resolution endorsing this concept.

EXHIBIT 1

CEDAR BLUFF RESERVOIR


Elev.
Capacities Ac.-Ft.
Top of Flood Control Pool
2166.0
376,950 (368,689)*
"FLOOD CONTROL POOL"
[191,860]#
Top of Existing Conservation Pool
2144.0
185,090 (176,829)*
"JOINT USE POOL"
[147,090]#
Top of Designated Operating Pool
2109.1
38,000 (29,739)*
Current Water Level
2106.0
Fish, Wildlife and Rec. [21,639]#
"DESIGNATED OPERATING POOL"
2096.8
16,361 (8,100)*
Artifical Recharge [5,400]#
2092.5
10,961 (2,700)*
Russell Water Supply [2,700]#
Min. Elevation for Making River Releases
2090.0
8,261 (0)*
"DEAD POOL"

* Corrected for 8.261 ac.-ft. at 2090.0
# Size of each specific pool in ac.-ft.


KANSAS
CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
BROWN
DONIPHAN
SHERMAN
THOMAS
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
ATCHISON
LEAVENWORTH
WYANDOTTE
JEFFERSON
SHAWNEE
WABAUNSEE
GEARY
DICKINSON
OTTAWA
LINCOLN
RUSSELL
ELLIS
TREGO
GOVE
LOGAN
WALLACE
JOHNSON
DOUGLAS
OSAGE
LYON
MORRIS
SALINE
ELLSWORTH
BARTON
RUSH
NESS
LANE
SCOTT
WICHITA
GREELEY
MIAMI
FRANKLIN
COFFEY
CHASE
MARION
McPHERSON
RICE
PAWNEE
HODGEMAN
FINNEY
KEARNY
HAMILTON
LINN
ANDERSON
GREENWOOD
BUTLER
HARVEY
RENO
STAFFORD
EDWARDS
FORD
GRAY
HASKELL
GRANT
STANTON
BOURBON
ALLEN
WOODSON
WILSON
ELK
SEDGWICK
KINGMAN
PRATT
KIOWA
CLARK
MEADE
SEWARD
STEVENS
MORTON
CRAWFORD
NEOSHO
LABETTE
MONTGOMERY
CHAUTAUQUA
COWLEY
SUMNER
HARPER
BARBER
COMANCHE
CHEROKEE

Senator **Bradley**. Thank you. Welcome to the subcommittee, Dr. Hulett.

STATEMENT OF DR. GARY HULETT, SPECIAL ASSISTANT FOR HEALTH AND ENVIRONMENT, OFFICE OF THE GOVERNOR, STATE OF KANSAS

Dr. **Hulett**. Thank you very much, Mr. Chairman.

Senator Dole, who was here a moment ago, of course comes from Russell, Kansas which is one of the cities that, of course, relies on some of the water the State of Kansas is purchasing through this particular contract. I happen to be from Hays, Kansas, which is also one of the areas that is involved in the artificial recharge portion of this.

The importance of this bill, however, is really that it allows for more efficient water management in the western part of Kansas. The devastating droughts that we have had during 1988 and early 1989 have brought home more than ever before how important it is in Kansas for efficient water management.

Fortunately, we have in Kansas a water plan, a State water plan, of which this particular project is one of the components. And it will allow us to more effectively manage the water resources in a semi-arid portion of the State. It is environmentally sound I think, Senator. It has good fiscal sense about it, and it certainly fits the needs of western Kansas.

Governor Hayden and the legislature have supported this through the appropriation of some $365,000 for the purchase of this conservation storage.

Governor Hayden asked me to express to the members of the committee how much he appreciates your hearing this bill and how much he appreciates your efforts on its behalf.

Thank you very much.

Senator **Bradley**. Thank you both very much for your testimony. I just have a few questions.

What proportion of Cedar Bluff's inflow shortage is really the result of upstream ground water withdrawals?

Mr. **Harkins**. That is impossible to quantify, Mr. Chairman. There is a——

Senator **Bradley**. Have any studies been done?

Mr. **Harkins**. There have been no finite studies done to the point where you can quantify the degree of depletion in my opinion. We would agree that appropriations upstream have led to some depletions of inflows. There is no doubt about that.

Senator **Bradley**. So, you think that it has led to some depletion, but you do not know of any studies where it is even estimated.

Mr. **Harkins**. The Bureau may have some figures, but there are none that we consider in our office to be of sufficient validity to cite.

Senator **Bradley**. Mr. Hall.

Mr. **Hall**. Mr. Chairman, I would agree with Joe that that is the case. It is a combination of several things, reduced rainfall in the area, changing farming practices, terracing and the like, and some ground water pumping. And I do not believe that any of us have seen studies that would describe how much you could assign to each one.

[The prepared statement of Mr. Hall on S. 53 follows:]

Statement of Joe Hall, Acting Commissioner, Bureau of Reclamation, Department of the Interior, representing the Department of the Interior before the Senate Subcommittee on Water and Power, Committee on Energy and Natural Resources on S. 53, a bill to authorize the reformulation of the Cedar Bluff Unit of the Pick-Sloan Missouri Basin Program, Kansas.

September 14, 1989

Mr. Chairman, I am here today to testify on S. 53, a bill "to authorize the reformulation of the Cedar Bluff Unit of the Pick-Sloan Missouri Basin Program, Kansas."

We do not oppose enactment of S. 53, but later in my testimony I would like to suggest four clarifying amendments to the bill.

During the late 1960's and continuing through the 1970's, extensive conservation practices such as terracing and no-till farming have significantly altered the storm runoff characteristics above Bureau of Reclamation reservoirs in western Kansas. Inflows from storm runoff were the principal sources of the water supply for these reservoirs. In addition, groundwater development, particularly groundwater pumping for irrigation use, further reduced the amount of water storage in the reservoirs that supplies water needed to fulfill authorized project purposes are no longer available. The Cedar Bluff Unit is one of the projects most seriously impacted by these conditions.

The Cedar Bluff Unit was authorized by the Flood Control Act of 1944 to provide flood control and to store intermittent flows of the Smoky Hill River for irrigation, fish and wildlife, and recreation purposes. The reservoir was also to provide a supplemental municipal water supply for the

City of Russell, Kansas. Cedar Bluff Dam and Reservoir were completed in September 1950.

Construction of the irrigation facilities began in 1961 and was completed in 1963. The facilities were designed to provide irrigation water to 6,800 acres.

Due to reduced reservoir inflows, no irrigation deliveries have been made to the Cedar Bluff Irrigation District since 1978, and the District has been unable to repay its obligation to the United States. Operation of the fish hatchery built by the United States Fish and Wildlife Service at Cedar Bluff Dam was terminated in 1983 due to the shortage of water and lack of funding. The facility was then turned over to the Kansas Department of Wildlife and Parks for operation as a goose rearing facility. The City of Russell has not requested releases from the reservoir since 1980 and now considers the reservoir only for use as an emergency water supply.

Following a series of studies concerning the future of the reservoir's water supply, a committee established by the Kansas Water Office recommended reformulation of the use of the Cedar Bluff Reservoir. After a year and a half of negotiations and public meetings with the agencies and organizations having an interest in Cedar Bluff Reservoir, a Memorandum of Understanding was signed on December 17, 1987, by the Bureau of Reclamation, the U.S. Fish and Wildlife Service, the State of Kansas, and the Cedar Bluff Irrigation District agreeing in principle to the proposed reformulation. The provisions of the Memorandum of Understanding are incorporated in S. 53. On February 27, 1989, following introduction of the proposed legislation, the Bureau of Reclamation and the State of Kansas signed a contract, contingent upon passage of the legislation, which provides for the State's acquisition of the right to use the reservoir's conservation capacity for fish, wildlife, recreation, and other purposes.

Mr. Chairman, it is important to note that while the provisions of the Memorandum of Understanding are largely incorporated into S. 53, the language of the legislation does contain one clear conflict with the MOU. Section 3(a) provides that all revenues in excess of operation and maintenance are paid to the United States, while the MOU provides that such amounts would be equally divided between the U.S. and the State of Kansas.

As the project stands today, it is highly unlikely that there ever will be revenues in excess of the operation and maintenance costs, but it is possible that that situation could occur. Should this legislation become law, the MOU would be revised to reflect the intent of the law.

Section 1 of S. 53 would authorize the Secretary of the Interior to implement the Memorandum of Understanding signed on December 17, 1987, for the reformulation of the Cedar Bluff Unit including reallocation of the reservoir's conservation capacity to obtain the best possible use of the limited water supply in Cedar Bluff Reservoir. Under the proposed legislation, the reservoir's conservation capacity would be reallocated into two separate capacities or "pools." The first pool encompasses the active reservoir water level and will include the City of Russell's municipal water supply, an allocation to provide emergency water supplies under the State's emergency drought program, with the remaining capacity reserved for fish, wildlife and recreation purposes. The second pool consists of the inactive portion of the reservoir's conservation capacity which will serve primarily to increase the reservoir's flood control capacity and, should water accumulate into this pool, it would provide additional fish, wildlife, and recreation benefits and could also provide a water supply that could be marketed by the State for M&I or any other identified need.

Section 2 would authorize the Secretary to enter into a contract with the State of Kansas for the sale to the State of the right to use and control the water in the reservoir's reallocated conservation capacity as provided in Section 1 with the exception of the water reserved for the City of Russell which the city would use as an emergency water supply.

Section 3 of the bill would provide that the State of Kansas would pay the United States $365,424 plus a proportionate share of the reservoir's annual operation, maintenance, and replacement costs. The United States would accept this payment as full satisfaction of all reimbursable costs associated with the Cedar Bluff Unit irrigation facilities, including the Cedar Bluff Irrigation District's remaining unpaid obligation under its contract with the United States. Following reformulation, any revenues in excess of operating expenses received from sale of water from Cedar Bluff Reservoir would be used to help defray the cost of the project. In addition, the Secretary would be given authority to transfer ownership of the United States Fish and Wildlife fish hatchery facility located at Cedar Bluff Dam to the State of Kansas for continued use for fish, wildlife and related purposes.

Under Section 4, the Secretary would be permitted to transfer to the Cedar Bluff Irrigation District, title to all property and equipment associated with the District's headquarters site located near Hays, Kansas, contingent upon the District's agreement to close down the irrigation system at no cost to the United States. Following closedown of the irrigation system, all easement rights held by the United States would transfer to the owners of the land to which the easements are attached and the transferees would assume all liability with respect to such interests and would indemnify the United States against all liability associated with the District headquarters.

Finally, Section 5 would give the Secretary the authority to take all other actions consistent with the December 17, 1987, Memorandum of Understanding that are deemed necessary to accomplish the reformulation of the Cedar Bluff Unit.

After working since early 1986 with the Department of the Interior agencies, the State of Kansas, and the various organizations and individuals involved in or having an interest in this matter, I believe S. 53 which authorizes the reformulation of the Cedar Bluff Unit to provide maximum utilization of the limited water resources available in Cedar Bluff Reservoir is in the best interest of the United States and the people of the State of Kansas.

While we do not oppose passage of the legislation, we would suggest clarifying amendments to four provisions of S. 53.

First, section 3(a) should clarify that the Reclamation Fund, and not the general fund of the U.S. Treasury, should be reimbursed for the costs of construction of the Cedar Bluff Unit Currently, the last sentence in section 3(a) (lines 6-10 on page 3) reads:

> After the reformulation of the Cedar Bluff Unit authorized by this Act, any revenues in excess of operating expenses received from the sale of water at the Cedar Bluff Unit shall be allocated to pay the United States for the cost of the project.

This section could be interpreted to require that the revenues received by the United States in excess of operating expenses would go into the U.S. Treasury as general revenues, rather than the Reclamation Fund. The Federal funds expended to complete the irrigation and drainage system came from the Reclamation Fund, and not the general fund. Therefore, to clarify this fact, we would recommend that the last line of section 3(a) be amended to read as follows:

> After the reformulation of the Cedar Bluff Unit authorized by this Act, all net revenues received by the United States from the sale of water at the Cedar Bluff Unit shall be credited to the Reclamation

Fund.

Second, we would suggest that on line 3, page 3, the word "the" after the phrase "satisfaction of" be deleted, and replaced with the word "all." This line would then read, ". . . satisfaction of all reimbursable costs associated with irrigation . . . ." This change would clarify the intent of the legislation that all of the reimbursable costs associated with irrigation and the District's financial liability for this project would be extinguished.

Third, we would recommend that section 3 be amended by adding the following sentence at the end of subsection (b):

> If any of the property transferred by this subsection to the State of Kansas is subsequently transferred from State ownership or used for any purpose other than those provided for in this subsection, title to such property shall revert to the United States.

This amendment would ensure that the property transferred by this subsection would be used for the purposes intended by this legislation. Furthermore, it would make S. 53 consistent with the intent of the Memorandum of Understanding referred to in section 1 of the bill.

Finally, section 4 of the bill would protect the United States from liability associated with the District headquarters after transfer. However, the United States may still be liable for the other facilities transferred under the provision of the bill. We do not believe that this was the intended result of this legislation.

In order to rectify this problem, we urge the Committee to amend S. 53 to protect the United States from liability associated with all of the lands and facilities that would be transferred by this bill. Specifically, the last sentence of section 4 should be deleted, and a new section 5 should be added, which would read as follows:

> The transferees of any interest conveyed pursuant to this Act shall assume all liability with respect to such interests and shall indemnify the United States against all such liability.

I appreciate the opportunity to offer this statement. If there are any questions, I will be glad to respond to them at this time.

Mr. **Harkins**. Mr. Chairman, I might point out that if you look at the hydrograph history of this unit, you will see that in 1951 in Kansas we had a record rain event. It happened to occur just as the gates were closed on this unit. It filled up almost overnight. It has steadily declined ever since then. So, there was no way in our opinion that appropriations above this unit really were the primary cause for its failure. We think that it is simply located in an area of the State where the rainfall is insufficient to provide the runoff to fill and maintain a unit of this size out there.

Senator **Bradley**. When I read the testimony, without your expertise with the details, it seems to me that we are dealing with merely a symptom here. Why don't we take this bill and deal with the upstream water problems? You would, however, urge us not to do that.

Mr. **Harkins**. It is not that simple. No, it is much more complicated.

We are in an area of Kansas where the average annual rainfall is around 20 inches. That is the average, and we have not had anything even near that in the last few years out there.

In the period of time since we negotiated this agreement, the lake level dropped 9 feet.

Senator **Bradley**. Is that right? Maybe, Dr. Hulett, you can answer this. Does Kansas have a program in place to prevent this kind of problem occurring at other Federal facilities?

Dr. **Hulett**. I would like to just comment on the question of whether it was upstream withdrawal from the aquifer. I happened to be at Cedar Bluff Reservoir in 1953 and 1954 shortly after it filled because of that 1951 rain event which was very unusual, somewhere on the order of over 40 inches of rain an area where the average is only 20. So, we had about twice as much rain.

Although I do not have any quantitative information on that, I think most of the decline is attributed to management practices upstream that attempted to keep what little water falls in that area on the ground, terracing, contour farming, which were just coming on line in a big way back in the early 1950's.

With regard to other reservoirs, we certainly are looking into the impact of ground water withdrawal on other reservoirs and attempting to set up management plans to minimize the impact on Federal reservoirs.

Senator **Bradley**. What stage are those plans now?

Dr. **Hulett**. Well, it depends on which reservoir. We have some 20-odd reservoirs in the State, and it depends on which one. And they are in various stages.

Senator **Bradley**. Could you provide the subcommittee with the state of your analysis and recommendations for dealing with groundwater depletion as it affects any Federal water facility in Kansas?

Dr. **Hulett**. Certainly.

Senator **Bradley**. We would love to receive that.

Mr. **Harkins**. Mr. Chairman, I might add the State of Kansas has purchased the conservation pool on nine Federal reservoirs. We have a purchase agreement to purchase storage in approximately eight more. So, it is in our best interest to protect the inflows into the units that we are making major investments in.

Senator BRADLEY. As you read this bill, does it authorize transfer of title to Cedar Bluff from the United States to Kansas?

Mr. HARKINS. We do not think it does, no, sir.

Senator BRADLEY. No title transfer.

How much are the reimbursable costs of the Cedar Bluff Unit, Mr. Hall? The same problem? Do you have that? Mr. Patterson, what are the reimbursable costs of the Cedar Bluff unit?

Mr. PATTERSON. I can't tell you precisely. We would have to provide that also for the record.

Senator BRADLEY. Do you know how much of the reimbursable costs are to be repaid by irrigators and how much by power revenues?

Mr. PATTERSON. Again, we could provide that. It is roughly $8 million that was allocated to irrigation, of which $7 million was projected as aid from power revenues.

Senator BRADLEY. What was that again?

Mr. PATTERSON. Eight million dollars allocated to irrigation, of which $7 million was to be repaid from assistance from power revenues.

Senator BRADLEY. Will this bill affect Pick-Sloan power rates?

Mr. PATTERSON. No, it will not. The way the legislation is structured, the payment by the State will satisfy those costs that have been allocated to irrigation in full.

Senator BRADLEY. Just so the bureau knows, at future hearings there are going to be a few basic questions the answers to which I will expect you to have on a little card in front of you, so that when the questions are asked, you can give me the answers and we do not have to wait for them to be provided for the record.

Mr. HALL. All right, sir.

Senator BRADLEY. Later, okay?

Let me ask either one of you about the memorandum of understanding that accompanies the bill. As I read it, it provides for recharge of an aquifer downstream from Cedar Bluff.

Mr. HARKINS. That's correct.

Senator BRADLEY. My question is whether we are bailing out one group of project beneficiaries, the Cedar Bluff Irrigation District, and substituting a new set of beneficiaries downstream who, unlike the irrigation district, would not have any responsibility to repay the obligation to the Government.

Mr. HARKINS. The answer to that is no, Mr. Chairman. The appropriations below the reservoir are closed by the State. There are no new appropriations being made.

The intended recharge that would be achieved from the release would be primarily for public water supply benefits at the city of Hays which has the first public water supply well field on the alluvial formation on Smoky Hill River below the dam. The city of Hays is presently developing a recharge project in the riverbed itself and has been awarded or is in the process of being awarded a grant from the bureau for the development of that project.

We would make metered releases from the reservoir, if the water is available, with the primary objective of trying to get water to a public water supply well field. There would be indirect benefits in the alluvial formation because we would be getting a relatively dry riverbed wet in order to transport the water, and there would be some loss in the transit of that water that would provide very indirect benefits.

Senator **Bradley**. But you say it is closed to new appropriations now.

Mr. **Harkins**. That's correct.

Senator **Bradley**. But isn't that discretionary at the state level? Could it be opened to new appropriations at any time?

Mr. **Harkins**. It could not in my opinion because we have already documented that additional withdrawals would harm existing water right holders, and in that case the State would not make additional water rights.

Senator **Bradley**. In your presentation, you talked about the fish and wildlife features of the project. Will this be coordinated with the North American Waterfowl Management Plan?

Mr. **Harkins**. I cannot answer that. That is a function of our Department of Wildlife and Parks, and I would presume that any Federal requirements are presently or would be met in the future.

Senator **Bradley**. If you could provide that for the record in a letter, that would be helpful. I raise this issue because the project is in the central flyway.

Mr. **Harkins**. Yes.

Senator **Bradley**. So, that would be helpful.

[The information referred to follows:]

STATE OF KANSAS

Mike Hayden, Governor

KANSAS WATER OFFICE
Joseph F. Harkins
Director

Suite 200
109 SW Ninth
Topeka, Kansas 66612-1215

913-296-3185

October 4, 1989

Mr. Thomas Jensen
Counsel to the Senate Committee
on Energy and Natural Resources
Water and Power Subcommittee
306 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Jensen:

At the conclusion of the Subcommittee hearing on Cedar Bluff Reservoir on September 14, 1989, Senator Bradley requested information on two points.

1. **What is the relationship of Cedar Bluff to the Central Flyway of North America?**

Cedar Bluff Reservoir is in the Central Flyway of North America and, as such, it provides nesting, migration and wintering habitat for a variety of migratory birds. Although there is very little wetland habitat associated with the reservoir, there is considerable use by waterfowl or spring and fall migration. When winters are not too severe, some birds, such as mallards and Canada geese, will winter on the reservoir. During the summer months, a few ducks and geese nest in the area.

The Kansas Department of Wildlife and Parks manages the lands around the reservoir both for wildlife and park use. The wooded areas, native prairies and riverine habitat attract large numbers of songbirds, shorebirds and other migratory species. Crops are grown to attract migratory birds and encourage nesting of geese through various management practices. The Department also manages a restoration flock of Canada geese at the reservoir. This cooperative program with the U.S. Fish and Wildlife Service is designed to produce Canada geese for reintroduction into suitable habitat in northwestern Kansas.

2. **What is the State of Kansas doing to protect inflows into federal reservoirs?**

In the State of Kansas, all water is "dedicated to the use of the people of the state, subject to the control and regulation of the state..." (K.S.A. 82a-702). The state's regulation of these waters is based upon the Appropriation Doctrine ("first in time is first in right"). In the State of Kansas, it is illegal to divert waters for beneficial use, except for domestic use, without a water right. The following items are specific actions that have been taken by the state which protect inflows into federal reservoirs.

A. The state presently holds water supply reservation rights for 11 Corps of Engineers reservoirs. These reservation rights protect inflows into the water supply pools in a manner similar to an appropriation right. In addition, we are preparing to obtain public water supply rights in four additional Corps of Engineers reservoirs in the near future.

B. The state is in the process of developing water quality reservation rights in six federal reservoirs. The authority to grant water quality reservation rights, which protect the federal interest in projects located in Kansas, was established with the passage of authorizing state legislation in 1986. These reservation rights will provide protection similar to supply rights for inflow to water quality pools controlled by the federal government.

C. For the western, mostly Bureau of Reclamation reservoirs, irrigation districts usually hold an appropriation right to storage water in the reservoirs. These rights can be administered against junior surface water rights up-stream of the reservoirs if impairment is shown.

D. Recognizing the impacts of groundwater diversion on inflows into western reservoirs, the Chief Engineer has established an Intensive Groundwater Use Control Area (IGUCA) above Cedar Bluff Reservoir. One of the major purposes of this IGUCA is to protect inflows into Cedar Bluff from further deterioration caused by groundwater pumping.

Sincerely,

Joseph F. Harkins
Director

JFH:dk
cc: Cedar Bluff File

Reimbursable construction costs for Cedar Bluff Unit, allocated to irrigation, are approximately $8 million of which the Cedar Bluff Irrigation District is obligated to repay $731,000. The balance will be repaid by the Pick-Sloan Missouri Basin power revenues.

Cedar Bluff Unit
Pick-Sloan Missouri Basin Program, Kansas
Cost Allocation

	Construction Cost ($1,000)	Percent
Irrigation:		
Cedar Bluff Irrigation District	731	4.1
Other (power assistance)	7,159	40.9
SUBTOTALS:	7,890	45.0
Municipal and Industrial Water	65	0.4
Fish and Wildlife Improvement	1,158	6.6
Recreation	16	0.1
Flood Control	8,382	47.9
TOTALS:	17,511	100.0

Senator **Bradley**. Senator Burns.

Senator **Burns**. Thank you, Mr. Chairman.

Mr. Harkins, does the State of Kansas have a water rights adjudication process?

Mr. **Harkins**. No, we do not. We have an administered water rights system in which the state has a chief engineer who grants water rights. It is not in a judiciary type process like some of the other Western States.

Senator **Burns**. I will have to go along and agree with you I was raised in northwest Missouri and in 1951, you took out the whole west bottoms in Kansas City.

Mr. **Harkins**. Yes, sir.

Senator **Burns**. Shipley lost his gray horse and found him in St. Louis, didn't he? Or something like that.

Senator **Bradley**. I remember that.

Senator **Burns**. You remember that? You do not remember back that far.

Senator **Bradley**. I do. [Laughter.]

Senator **Burns**. I am just wondering about this point. If you do not have a water adjudication process—and, if withdrawal from that river above that reservoir for irrigation purposes occurs given that you have been awfully dry out there, what are the chances of ever filling that reservoir again? You are only 11 percent of pool right now.

Mr. **Harkins**. It would be a thousand in one shot in my opinion, and really the odds are so small that it would be really not realistic to expect it to ever fill again.

Senator **Burns**. That is the only question I have. Thanks, Mr. Chairman.

Senator **Bradley**. Thank you very much, Senator Burns.

Senator Conrad, do you have any questions?

Senator **Conrad**. Not of these witnesses.

Senator **Bradley**. Let me just come back to the one point that I asked about, the opening of the area south or below the area. You said it would not be opened. You do not anticipate it being opened. In fact, you think it definitely is not going to be opened. Would you have any objection to our clarifying that in the bill——

Mr. **Harkins**. None whatsoever.

Senator **Bradley** [continuing]. So that it is absolutely clear that this is not going to be used for new irrigation?

Mr. **Harkins**. We have no objection at all.

Senator **Bradley**. Thank you very much for your testimony. It was extremely helpful.

Dr. **Hulett**. Thank you.

Senator **Bradley**. Now, for our last panel, we have S. 202 which is Lake Andes-Wagner, and we have a large list of witnesses. Our first witness is Senator Pressler. Senator Daschle is here. And at some point the Governor will be here. So, if the two or the three of you would like to make your statements, please feel free to begin. Senator Daschle.

STATEMENT OF HON. THOMAS A. DASCHLE, U.S. SENATOR FROM SOUTH DAKOTA

Senator DASCHLE. Mr. Chairman, thank you very much, and members of the committee.

I know I speak for all of our South Dakotans in expressing our real gratitude to you for taking the time, but more importantly for showing the tremendous cooperation that you have in working with us on this very important project.

I am going to submit a statement for your record and be very brief because I know that there are a number of people who want to express themselves on this issue.

It was 20 years ago when this project's manager, Marc Goldhammer, first came to Washington to share a dream that he had, he and many others, for the improvement his area. And during that 20-year period, South Dakotans have lived what we have called a promise. That promise was a trade of irrigation projects for 500,000 acres of land that were given up in South Dakota over a period of time in four mainstem reservoirs for hydroelectric power. In that 20-year period of time, 58,000 acres of land were given up in Charles Mix County, the county that I hope will house this irrigation project. In that 20-year period, these people kept waiting. They are still waiting and they are watching.

Since 1950, we have seen a population decline in that county and in that area of 58 percent.

Where in 1950 we had 100 school districts, today we have four.

The Indian people who live in that area have waited and watched as well. Their unemployment has gone from 20 to 30 percent, now up to 80 percent.

When Marc Goldhammer came with his people 20 years ago and talked about this dream, he talked about it being an economic development project. And today we are here to tell you that that is exactly what it is. It is more than an irrigation project. It is an economic development project to provide the jobs, to provide the future, to provide for the kind of opportunity that these people are looking for. The Yankton Sioux share that dream of economic development. They need to find jobs for their people.

We have seen abuse in reclamation projects in the past, and the chairman, perhaps more than anybody else, has looked with great interest in trying to resolve the many problems we have with abuse in reclamation projects. In my view, this bill is our answer. This is an opportunity for us to show that reclamation can work, that we can deal with conservation much more effectively, that we can deal with the needs in irrigation and economic development and still deal a lot more effectively with abuse and with scaled down opportunities in the Bureau of Reclamation.

Finally, I think it is important that we in the Congress recognize the partnership that must be created with the States if these projects are to work. In this case, South Dakota has put more than its share of responsibility, more than its share of their own goodwill into this whole effort. Forty-six million dollars of the $181 million will come from our State. They are willing to negotiate whatever it takes to see that we accomplish what we are setting out to do in finalizing the plans and coming to grips with this partnership and dealing with it more effectively than we have in the past.

Mr. Chairman, that is my message. This is a good faith effort, with bipartisan support and unanimity about the need for developing what we consider to be the finest opportunity to achieve economic development in this area. And with your help, I think that there is a good chance that we could succeed in bringing them at long last the dream that they held out for 20 years.

[The prepared statement of Senator Daschle follows:]

Statement of

SENATOR TOM DASCHLE

South Dakota

on

S.202

The Lake Andes-Wagner/Marty II Project

Before the

Committee on Energy and Natural Resources

Subcommittee on Water and Power

United States Senate

September 14, 1989

Mr. Chairman, I want to thank you and the Committee for the opportunity to testify before you today on S.202, the Lake Andes-Wagner Irrigation Project. On behalf of all South Dakotans, I thank the Chairman for his willingness to review this important project, and for his previous support for South Dakota water development.

Twenty years ago, Marc Goldhammer, manager of the Lake Andes Irrigation District, first came to Washington to promote a dream. The dream was of a small-scale federal irrigation project located in the shadow of the Fort Randall Dam on the Missouri River. Mr. Goldhammer and his neighbors in the region, many of whom are here today, have lived with what South Dakotans call "The Promise." More than 500,000 acres were lost under reservoirs in South Dakota as four main stem dams were built on the Missouri. In Charles Mix County, where Lake Andes-Wagner is located, more than 58,000 acres were flooded. In return, the federal government promised to provide irrigation to the people of South Dakota.

As the Chairman knows, Mr. Goldhammer and others are still waiting. They watch as people leave the region, convinced that economic opportunities will never come. They watch their own children leave the area and their heritage. Since 1950, the population of the project area has declined by 58 percent, and where there were once more than 100 school districts, there are now four. Without help, there is little to make one think that this trend will reverse itself.

Steven Cournoyer, who is here today, also watches his people suffer. Mr. Cournoyer is chairman of the Yankton Sioux Tribe, which would be a beneficiary of the Lake Andes-Wagner project. Chairman Cournoyer represents a Tribe with unemployment running at greater than 80 percent. Again, the lack of opportunity creates a situation where a proud people do not have a real chance to break free of federal assistance.

Chairman Cournoyer, Marc Goldhammer and the people of the region have continued to fight to revitalize the area. That is why they are here today, and it is why I am here. Lake Andes-Wagner is more than an irrigation project -- it is an economic development project, designed to meet real needs and help real people. It is designed to provide rural development while protecting the environment.

The abuses of the reclamation system are well known, and I applaud the Chairman for his willingness to critically reexamine the Bureau of Reclamation and federal water development policy. I strongly believe that Lake Andes-Wagner represents what reclamation should accomplish.

Lake Andes-Wagner is a riverside irrigation project not needing large and expensive lifts to get the water to the fields. The reservoir, Lake Francis Case, already exists. It is a small, manageable project irrigating approximately 45,000 acres. The local sponsors and the State of South Dakota, ably represented by Governor George Mickelson, have presented a generous cost-share agreement contributing more than $46 million to the $181 million dollar project.

All available studies confirm that there is not a selenium problem in the Lake Andes-Wagner project area. This fact enables the project to serve a dual purpose of providing water for agriculture while also regulating flows into the Lake Andes National Wildlife Refuge. Finally, the project benefits small farmers who live and want to remain in the Lake Andes region.

I have presented to the Committee, for myself and my colleague Senator Pressler, several amendments further addressing concerns that have been raised about the project. I will summarize these amendments at this time.

The first concerns the Marty II portion of the project. As the Chairman knows, Marty II, located approximately 5 miles from the Marty II area, was added to the project to expand project benefits onto the Yankton Sioux Reservation. Marty II would have irrigated 3,000 acres on the reservation to go along with the 1,700 acres of Indian-owned land in the Lake Andes-Wagner project area. However, preliminary studies by the Bureau of Reclamation indicate that the Marty II area has elevated selenium levels, and, therefore, should not be pursued.

While Chairman Cournoyer and I consider the loss of Marty II a great blow, I believe I speak for the sponsors, the State and the Congressional delegation when I reaffirm our commitment to provide economic development opportunities to the Yankton Sioux Tribe. The Tribe will still receive benefits from the 1,700 acres of Indian-owned land in the project area. Furthermore, I have submitted an Indian employment amendment to the bill giving preference to members of the Yankton Sioux Tribe in the hiring for construction of the Lake Andes-Wagner project. Chairman Cournoyer has also submitted a wide ranging economic development proposal, entitled "Struck-by-the-Ree," to the Subcommittee for its consideration. These projects represent concrete opportunities for economic development on the Reservation in conjunction with the Lake Andes-Wagner project. I look forward to working with the Subcommittee in the weeks ahead to refine this proposal so that the Yankton Sioux Tribe can remain an integral part of the Lake Andes-Wagner project.

The question of surplus crops and the so-called "double subsidy" is a legitimate concern that is addressed in the bill. The bill contains an innovative section limiting farm subsidy payments to the dry land value of the crops. I agree that the goal of the project is to provide opportunities outside traditional agricultural practices in the region. Without reliable water, only surplus crops will be grown in the region. With reliable water, farmers can diversify into high value crops. As the sponsors and the State will testify, there has already been significant economic interest in the area and a variety of incentives are in place to promote infrastructure investment.

To ensure further that diversification will occur, my amendment directs the Secretary to establish demonstration farms or plots. These projects would demonstrate crop selection, irrigation practices, and water management techniques, and could serve as technical models to escape surplus crop production. While some surplus crops will continue to be produced because of existing infrastructure (livestock raising operations, for example), I am confident that the great majority of the agricultural production will shift away from surplus crops.

Irrigation has often been a buzzword for the environmental community. The disaster of Kestersen National Wildlife Refuge in California points out some of the dangers of poorly considered irrigation. Nobody wants this to be repeated in South Dakota. This is the reason Marty II is being reconsidered. I am committed to protecting and enhancing South Dakota's environment, and Lake Andes-Wagner does this.

I have submitted to the Subcommittee for its consideration several amendments aimed at strengthening the bill's environmental safeguards. Acre-for-acre mitigation, based on ecological equivalency, is mandated. Another amendment, requested by the

U.S. Fish and Wildlife Service, expressly states that mitigation be accomplished concurrently with construction of the project. Strict water conservation measures are mandated in another provision I have submitted. Finally, I have included an amendment to establish a review board that will direct the establishment, implementation and operation of a water quality monitoring program. The purposes of this board would be to help design the project in an environmentally-benign fashion, and to monitor on a regular basis flows into the Lake Andes National Wildlife Refuge. The Board would be required to make reports not less than once each year to the Congress and the State of South Dakota concerning its activities. In this way, should any problem occur regarding dissolved solids or other forms of contamination, it can be immediately identified and corrected. These amendments are in addition to the various environmental commitments made by the sponsors in the project planning report.

The last major amendment submitted to the Subcommittee concerns rural water supply. As the Chairman knows, the Lake Andes-Wagner Irrigation project is only one of a handful of water needs addressing the State. The Chairman was very helpful in authorizing the Mni Wiconi Rural Water System in the last Congress, and the WEB project before that. These are both rural drinking water systems addressing serious water quantity and quality problems in the state. The Mid-Dakota Rural Water System is currently before the Congress seeking authorization and is designed to address drinking water needs in the east-central part of the State. In recognition of the drinking water needs facing the state, the Lake Andes-Wagner bill would be amended to permit facilities of the project to be used by rural drinking water systems so long as a variety of conditions are met. By adding this flexibility to the system, more water needs can be addressed in a cost-effective manner.

I have also submitted several other minor technical amendments that I would be happy to discuss, but that I will not detail in my statement.

Mr. Chairman, the question of the Lake Andes-Wagner project is more than a question of whether 45,000 acres of rural South Dakota will receive irrigated water. The question is one of commitment to rural America. If the Congress favors making the Great Plains a buffalo preserve, as some suggest, then we should forget Lake Andes-Wagner. If there is to be a future in rural America, as I believe there is, then we must find ways to promote economic development in a cost-effective and environmentally sustainable fashion.

The Bureau of Reclamation was created to bring economic development to rural America by making water available. Over the years, the ideals of the Bureau were often perverted, and environmental calamity and waste became synonymous with irrigation.

The time is upon us to return irrigation and the Bureau of Reclamation to what they were designed to do -- bring essential resources to rural America. If there is a future in irrigation, then Lake Andes-Wagner represents the new generation. In line with the touted new mission of the Bureau, Lake Andes-Wagner is an environmentally oriented, small scale and cost-effective irrigation project. It is designed to meet the real needs of the small farmers in an economically depressed region. It is not a handout -- it is an investment in the future.

I urge the Subcommittee to give the Lake Andes-Wagner project its full support.

Thank you.

Senator **Bradley**. Thank you very much, Senator Daschle. Your persistence in championing this project is one of the reasons that we are having the hearing today.

I am very pleased that Senator Pressler could join us. And, Governor Mickelson, I am very pleased that you are here. I recall that you were here before the subcommittee last year.

Senator Pressler, the subcommittee will hear your testimony now on this issue.

STATEMENT OF HON. LARRY PRESSLER, U.S. SENATOR FROM SOUTH DAKOTA

Senator **Pressler**. Well, Mr. Chairman, I join in those remarks, and I too will summarize my statement so that others who have traveled a great distance can testify and that we can hear from our governor. I join in what Senator Daschle has said.

This band of people from South Dakota, of whom I am very proud, who have been coming here year after year and meeting with us when we are in the State, are a very courageous and persistent group of people led by Mr. Goldhammer and others. And they have worked on this dream for years.

I wish to offer my strongest support for this project.

I want to thank you, Mr. Chairman, and the committee for holding this hearing and allowing us to be here and hearing our arguments.

I know that we will be perhaps repeating, but South Dakota has felt it has never recovered from the sacrifice of over 500,000 acres of farmland for the construction of four mainstream dams on the Missouri River for hydroelectric power, flood control and navigation, benefiting downstream States. Many South Dakota residents gave up their homes and farms, and the farmland that South Dakota sacrificed represented some of the best agricultural land in our State.

We feel that a commitment was made to South Dakota. And although we have had some success in the effort, in the development of the WEB project and the rehabilitation of the Belle Fourche irrigation project, the Federal commitment to South Dakota is still far from being fulfilled. The authorization of this Lake Andes-Wagner irrigation project is an effort to obtain a partial payment of the Federal commitment to South Dakota.

Mr. Chairman, I need not tell you about the drought conditions that have existed in that area. The potential development of alternative crops would not only benefit farmers, but also the local economy. The Yankton Sioux Indian Tribe has land which would be irrigated by the project, and their people would benefit from the off-farm jobs which would be created. Their current unemployment rate is approximately 85 percent.

The proposed Lake Andes-Wagner irrigation project would pump water from Lake Francis Case on the Missouri River to irrigate 45,000 acres of farmland in Charles Mix County in South Dakota. Irrigation water would be provided to private farmland, as well as land owned by the Yankton Sioux Indian Tribe.

Rural development is gaining nationwide attention. Charles Mix County in South Dakota urgently needs rural development. The

Lake Andes-Wagner irrigation project is an ideal vehicle for rural development in that area.

Once a stable source of raw product is created through the irrigation project, industries can be established to process these raw goods. Jobs would be created in areas suffering from one of the highest unemployment rates in the State and Nation. Alternative crops would be produced on many of the acres covered by the irrigation district.

The legislation contains a provision which eliminates double subsidies on farm program commodity crops. Increased production of program crops because of irrigation would not cost taxpayers any more money than under current farming methods. Innovative farmers in the project area are already experimenting with alternative crops such as potatoes.

South Dakota is noted for its clean environment and wildlife habitat. In an area known as the Prairie Pothole region, South Dakota has the responsibility of preserving its wetlands for the regeneration of waterfowl and other wildlife for future generations. The Lake Andes-Wagner irrigation project accepts its responsibility to protect the environment, and wildlife enhancement is a major consideration of the project.

Mr. Chairman, let me conclude by saying that this Lake Andes-Wagner irrigation project has much to offer the state and the region. The project supporters here today have conscientiously addressed any objections raised to the project and its development. The benefits this project offers justifies the support of this committee. The only way this project can become a reality is by receiving local, State and Federal support.

I am proud to sit here with our Governor and my colleagues from the Senate and the House and very proud to be sitting here with the dedicated people who have again traveled to Washington.

Mr. Chairman, I urge your committee to keep the Federal commitment to South Dakota in mind when it considers this bill authorizing this South Dakota water project. I hope that your committee will take early action on this important legislation. Thank you very much.

[The prepared statement of Senators Pressler and Burns follow:]

STATEMENT OF SENATOR LARRY PRESSLER
before the
Subcomittee on Water and Power
Committee on Energy and Natural Resources
United States Senate
September 14, 1989

MR. PRESSLER. Mr. Chairman, as a cosponsor of S. 202, a bill which will authorize the Lake Andes/Wagner irrigation project, I wish to offer testimony in support of this project. I want to thank the committee for scheduling this important hearing. I also want to thank you for giving me and others an opportunity to express our support for this project.

As you are well aware, water development in South Dakota has a long history. In the 1940's, South Dakota agreed to sacrifice over 500,000 acres of farmland for the construction of four mainstem dams on the Missouri River for hydroelectric power, flood control, and navigation, benefiting downstream states. Many South Dakota residents gave up their homes and farms. The farmland that South Dakota sacrificed represented some of the best agricultural land in the state.

In return for the sacrifices South Dakota made for the construction of the dams, the federal government made a commitment to South Dakota. That commitment was to provide water development in the state. Since coming to Congress in 1975, I have continually fought for the development of South Dakota water projects. We have had some success in this effort during that time with the development of the WEB project and the rehabilitation of the Belle Fourche irrigation project, but the federal commitment to South Dakota is still far from being fulfilled. The authorization of the Lake Andes/Wagner Irrigation project is an effort to obtain a partial fulfillment of the federal commitment to South Dakota.

The drought conditions of the last two years have emphasized the need for dependable feed supplies for livestock. In July, I toured fields and pastures in South Dakota that should have been lush and green. Instead, I saw pastures that had no grass. Crops were shriveled and burned with no hope of rain reviving them. Cattle had been moved to other states. One of the primary focuses of the Lake Andes/Wagner Irrigation project is to provide a reliable supply of water to farmers so that they can stabilize their livestock base and shift their production from surplus wheat and feed grains to alternative crops.Such a transition cannot occur without a reliable supply of moisture. The development of alternative crops would not only benefit farmers, but also the local economy. The Yankton Sioux Indian Tribe has land which would be irrigated by the project and their people would benefit from the off-farm jobs which would be created. Their current unemployment rate is approximately 85 percent.

The proposed Lake Andes/Wagner irrigation project would pump water from Lake Francis Case on the Missouri River to irrigate 45,000 acres of farmland in Charles Mix County in South Dakota. Irrigation water would be provided to private farmland as well as land owned by the Yankton Sioux Indian Tribe.

Rural development is gaining nationwide attention. Charles Mix County in South Dakota urgently needs rural development. As rural development is discussed, no one seems to know the correct vehicles needed to develop rural areas. The Lake Andes/Wagner Irrigation project is an ideal vehicle for rural development in this area.

Once a stable source of raw product is created through the irrigation project, industries can be established to process these raw goods. Jobs would be created in an area suffering from one of the highest unemployment rates in the state and nation.

Alternative crops would be produced on many of the acres covered by the irrigation district. The legislation contains a provision which eliminates double subsidies on farm program commodity crops. Increased production of program crops because of irrigation would not cost taxpayers any more money than under current farming methods. Innovative farmers in the project area are already experimenting with alternative crops such as potatoes.

South Dakota is noted for its clean environment and wildlife habitat. In an area known as the "prairie pothole region," South Dakota has the responsibility of preserving its wetlands for the regeneration of waterfowl and other wildlife for future generations. The Lake Andes Wagner Irrigation Project accepts its responsibility to protect the environment, and wildlife enhancement is a major consideration of the project.

The Lake Andes/Wagner Irrigation Project has much to offer the state and region. Project supporters have conscientiously addressed any objections raised to the project and its development. The benefits this project offers justify the support of this committee. The only way this project can become a reality is by receiving local, state, and federal support.

Mr. Chairman, I urge your committee to keep the federal commitment to South Dakota in mind when it considers this bill authorizing this South Dakota water project. I hope that your committee will take early action on this important legislation.

OPENING REMARKS--WATER AND POWER SUBCOMMITTEE

by Senator Conrad Burns

September 14, 1989

Mr. Chairman: Thank you for the opportunity to make a few remarks.

As a proponent developing the water potential in the arid west, I am looking forward to evaluating the merits of the projects we will consider this afternoon.

We who live in the upper Missouri River basin are very conscious of the cyclic nature of natural moisture. When you can expect an average of only 8 or 10 inches of precipitation a year, you learn the value of saving your water for a rainy day. This Congress has a long history of recognizing this though the authorization of water and power projects in the west for nearly 100 years.

Though these water projects enhance the quality of life for citizens of these states, there are many national benefits.

Man-made storage of water:

provides the capability for irrigating agriculture crops;

provides water-based recreation;

provides for the maintenance of downstream flow;

provides for wetlands and waterfowl habitat that would not otherwise exist;

and provides the capability to dissipate the fury of floods and to maintain the river commerce in dry years.

Truly there are significant public benefits to developing water resources in the arid west.

Several of the projects we are considering today will augment projects under the Pick-Sloan Missouri River Basin Program. Pick-Sloan is a program that benefits all of the Missouri basin states, but it has the potential of considerable improvement to the agricultural economy in my own state of Montana. I am certain this applies to the folks in South Dakota who support the Lake Andes and Marty projects.

I am disturbed that, after reviewing the progress so far, there is plenty of indication that the upper basin states, including Montana, have not received their fair share in the implementation of Pick-Sloan. This is a major reason for my upcoming trip to South Dakota.

Authorization and funding of additional projects in the arid states would provide farmers with the opportunity to grow alternative crops that may not be as abundant as traditional crops. For example, I see considerable potential in the production of rapeseed, canola, and safflower seeds for oils. There are many other examples.

More attention to projects in the upper basin states would alleviate another situation that needs our attention. During periods of low rainfall, such as we experienced the past two years, releases from upsteams storage has been accelerated to maintain river commerce in the Missouri and Mississippi Rivers. This has resulted in lower than normal upstream reservoirs. Campers, boaters fishermen and tourists tended to stay away, and the local economies suffered. Low levels also jeopardize water power generation, and dependent irrigators run water shortage risks. This problem can be helped by the authorization and construction of additional upstream developments.

So you see I am very interested in water and power developments. Thank you Mr. Chairman.

Senator **Bradley**. Thank you very much, Senator Pressler. It is always good to hear from you on an issue that is so important to your State.

The subcommittee now has the opportunity to hear from Governor Mickelson. Welcome back to the subcommittee. Please share with us whatever you would like to say.

STATEMENT OF HON. GEORGE S. MICKELSON, GOVERNOR, STATE OF SOUTH DAKOTA

Governor **Mickelson**. Senator Bradley, thank you very much, Senator Conrad. I do appreciate as always the opportunity that you have given me to speak with you privately and before this committee on projects that are very important to South Dakota. I am again very honored to be able to be here today.

I think it is appropriate, especially since Senator Burns' State has a centennial and Senator Conrad's State has a centennial, maybe we talk about Lake Andes-Wagner/Marty II perhaps in a historical perspective because South Dakota is also celebrating its first century of statehood this year. I know that the proud history of New Jersey is a little longer than ours, but nonetheless, all of us have a history that we can build on just a little bit.

I think it is interesting to note that in 1898 there was a gentleman by the name of Captain Seth Bullock who was a prominent businessman from Deadwood, South Dakota. That is the place where Wild Bill Hickock was shot for playing poker, if you remember.

Senator **Bradley**. I have been there.

Governor **Mickelson**. Well, we invite you back.

Captain Bullock served with Colonel Teddy Roosevelt and his Rough Riders in the Spanish-American War. Teddy Roosevelt also, as you understand, was a rancher in North Dakota. Bullock and Roosevelt became very good friends, and through this relationship, which is important to point out, Bullock was able to secure the construction of a 57,000 acre Belle Fourche irrigation project in western South Dakota during the Roosevelt Presidency in the early 1900's. Now, it was built in 1908, and the Belle Fourche project was the first Bureau of Reclamation project that was ever built in the Western United States.

The Belle Fourche project employed what was at that time, the leading edge of technology. The Orman Dam was, at that time, the largest earthen dam in the world. Over 10,000 horses and mules were used in that construction project.

Today we are here asking that you authorize a second major Bureau of Reclamation irrigation project in South Dakota. Just as the Belle Fourche project employed the leading edge of technology as it existed in 1908, we are asking that as we begin our second century of statehood, we be allowed also to recognize some of the changing contemporary needs of agriculture and the way that we are employing in our economic development efforts in South Dakota.

The Lake Andes-Wagner project will employ the leading edge of technology as we approach our 21st century. Just as the Belle Fourche project, if we look at the record, has been a tremendous asset and an economic base for over 80 years in western South Dakota, Lake Andes-Wagner will also be an invaluable asset as we begin our second century of statehood.

Every time I have talked with you, sir, and members of this committee, I have tried to recognize the contemporary times. We need to come here as representatives of our State, as other Governors do and other private citizens do, recognizing that there are some changes that have taken place. We need to recognize what those contemporary needs are. Clearly a great deal of change has taken place since 1908. The technology used in the Belle Fourche project has been replaced with space age technology. A great deal has also changed since the Pick-Sloan Missouri River Basin Program was originally approved by Congress in 1944.

One thing has not changed and that is a need for rural economic development. The cornerstone of the Pick-Sloan program as it was approved by Congress over 40 years ago was rural economic development. And the need for rural economic development is just as great today.

As Governor, I have asked our legislature and the citizens of our State to aggressively pursue rural economic development understanding that we need for the most part to control our own destiny and invest in it. Although we have taxed ourselves to develop a low interest loan program, we wanted to do more in the area of research and development. And so, we went to the business community and asked through a special mechanism that we set up to invest in what we call a futures program.

We have attempted to fashion water development programs in South Dakota which recognize changing world needs, changing needs of this Nation and meet contemporary needs. We started 2 years ago, as I have explained to this committee before, an important process to establish realistic objectives and identify priority water projects in our State.

And so, it is in that spirit that we come before you today.

Changing times. We fully recognize the current Federal budget problems that you people deal with every day and that we are very interested in.

Second, we need to increase the emphasis on environmental values, a very important part of every water project that we need to talk about.

I understand the political realities of today also as we deal much more closely with our neighboring States in regional projects. We understand the need to share costs. South Dakota has shares in projects considered by this committee before and recognizes the reality of cost sharing which is very much a part of the contemporary world.

We have shelved 500,000-acre, billion-dollar projects that were promoted in earlier days.

The 45,000 area Lake Andes-Wagner project is efficiently designed. It resolves concern about surplus crops and double subsidies. It encourages alternative crops. It includes wildlife enhancement as key project components. And so, that is really the message that we need to get across.

In addition, we are also interested, as I have an opportunity to talk with you before, in pursuing the Mid-Dakota water system which would provide drinking water and water for livestock to an important area of our State that is currently dependent on poor quality groundwater. It is a health issue and much a part of our State.

Rural water systems are key factors in economic development and the economic health and future of rural communities in our part of the United States.

Lake Andes-Wagner and Mid-Dakota are both contemporary projects, two of the highest priorities for which we need congressional authorization.

As Governor, I have set rural economic development goals for all of South Dakota, including the Indian reservations within our State. Annual per capita income on the Yankton Sioux Reservation is $1,213 a year, and unemployment is 87 percent. While the Marty II unit may not be feasible due to high levels of selenium in the soils, we are committed to pursuing alternatives which can improve the economic standing of the Yankton Sioux Tribe.

One of the highest rural economic development priorities in our State is to attract agri-processing facilities. South Dakota is highly dependent on agriculture. We are the most agricultural State in the Nation in terms of our gross State product and the numbers of our people directly employed in agricultural production, but we are subject to periodic drought. We are currently pursuing possibilities such as an oilseed crushing plant, a pork plant, potato processing plant, and an alfalfa processing plant. We are involved in discussions with private sectors such as Northern Star and Agrigenetics. We are prepared to offer you letters of interest to show that, and we have the tools, as I mentioned before, to be able to see that we follow through with those.

We have programs, as I mentioned also, such as REDI to assist in securing the agri-processing plants. The fact remains, however, that, every time we have spoken with them, industry has emphasized the need for a guaranteed stable crop production base prior to developing the plants. Lake Andes-Wagner will provide that stability.

We also recognize the value of wildlife enhancement and its importance to the overall quality of life. We are engaged in several wildlife enhancement projects, and would like to do more. We have, for example, a 17,000-acre lake in the eastern part of the State, the Thompson wetlands restoration project, which we have developed through conservation partnerships with Ducks Unlimited, the U.S. Fish and Wildlife Service and the South Dakota Department of Game, Fish and Parks. We have with the Nature Conservancy developed projects such as the Crystal Springs projects and within the last 2 weeks have dedicated again with private organizations such as those and the Federal Government and our own resources—have truly developed a North American waterfowl management plan and are progressing along with the water development projects that we bring before this committee.

Good agriculture is good for wildlife. I need to emphasize that. On central flyway, South Dakota produces more ducks even than Manitoba now because we have recognized those kinds of things.

As part of the South Dakota water initiative, we have identified the need for a wildlife enhancement trust fund to further our efforts so that we can commit to this committee toward that. We have developed a Game, Fish and Parks Foundation, already raising money so that we can be established and be off to a good start.

A trust fund such as the one that we have talked about could help fund a number of valuable projects along the Missouri River, the James River, the central flyway. It would be a benefit to all of the central part of this Nation.

I look forward to working with Congress, with this committee, with my contemporaries who represent South Dakota very ably in this U.S. Congress in the effort to secure authorization for the Lake Andes-Wagner Project and additional economic opportunities for the Yankton Sioux Tribe.

Thank you very much.

[The prepared statement of Governor Mickelson follows:]

STATE OF SOUTH DAKOTA

GEORGE S. MICKELSON
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STATEMENT OF

GEORGE S. MICKELSON
GOVERNOR
STATE OF SOUTH DAKOTA

ON S. 202
LAKE ANDES-WAGNER UNIT AND MARTY II UNIT

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

SEPTEMBER 14, 1989

Mr. Chairman, I am here today to speak in support of S. 202, a bill which will authorize the construction of the Lake Andes-Wagner/Marty II Unit irrigation project in south central South Dakota. The Lake Andes-Wagner/Marty II project is a relatively small irrigation system by traditional Bureau of Reclamation standards, but the project will have a major, positive economic impact in the local project area. The project will provide needed income and jobs for residents of Charles Mix County and for members of the Yankton Sioux Indian Reservation. Annual per capita income on the reservation is $1,213 and unemployment is 87 percent. The legislation, as drafted, contains a unique provision which eliminates double subsidies of surplus crops, and encourages the development of alternative crops. The project plan contains provisions for wildlife enhancement and incorporates contemporary irrigation management to minimize irrigation water consumption. I believe Lake Andes-Wagner/Marty II Unit is a contemporary project which addresses local, regional and national needs.

I am aggressively pursuing rural economic development in South Dakota and fully support attempts to locate an associated agricultural processing facility in the project area. Industries which are being considered include an oilseed crushing plant, a pork plant, an alfalfa processing plant, and a potato processing plant. The Lake Andes-Wagner/Marty II project can provide the stable production base necessary to support agri-processing industries and we are now discussing possible developments with the private-sector, the local project sponsors and the Yankton Sioux Tribe. Agri-processing companies interested in locating in the Lake Andes-Wagner area, however, have emphasized that a stable crop supply is a mandatory requirement. In our semi-arid state, a stable crop base can only be achieved with irrigation.

We have aggressive industrial development programs in place which will be capable of supporting agricultural processing industries who wish to locate in the Lake Andes-Wagner area. These programs include:

- The Revolving Economic Development and Initiative (REDI) fund, administered by the Office of Economic Development, provides loan funds at three percent interest.

- The South Dakota Economic Development Finance Authority has the ability to issue bonds for project specific purposes.

- The Community Development Block Grant (CDBG) program can provide infrastructure improvements that are necessary to support industrial development.

The Marty II Unit is a proposed 3,000-acre Indian irrigation project for the Yankton Sioux Tribe, located approximately five miles southwest of the Lake Andes-Wagner project. The Marty II study was initiated as part of a cooperative effort among the Yankton Sioux Tribe, the Bureau of Indian Affairs, the Lake Andes-Wagner irrigation project, and the state of South Dakota. The $180,000 study effort began in the spring of 1988 and is being conducted by the U.S. Bureau of Reclamation. Preliminary results of the soil testing in the Marty II area indicate that the soils are seleniferous and, consequently, not suited for irrigation. The Marty II project was envisioned as an economic development opportunity for the Yankton Sioux Tribe. While development of the Marty II Unit does not appear possible at this time, we are committed to working with the Yankton Sioux Tribe to identify economic development alternatives which can be incorporated into the Lake Andes-Wagner project to replace the additional benefits the Marty II Unit would have produced. In addition, approximately 1,700 acres of Indian-owned lands within the Lake Andes-Wagner project will be developed as part of the Lake Andes-Wagner Unit. The benefits to the Yankton Sioux Tribe from the 1,700 acres of irrigated land, project-generated employment, and associated rural economic development will be substantial.

I am also committed to water resource development as an important component of South Dakota's economic development plan. In 1987, South Dakota implemented a water initiative to move forward under the 1944 Missouri River Pick-Sloan program and to meet contemporary water development needs in South Dakota.

Utilizing input from citizens across the state, the Board of Water and Natural Resources completed an in-depth study of water development needs and recommended several water resource development projects. This project list served as the basis for legislation passed unanimously by the South Dakota State Legislature in 1988 which directed the executive branch to proceed as quickly as possible to pursue contemporary South Dakota water projects and accomplish the rural economic development objective of the 1944 Flood Control Act. The legislation also established the Missouri River Cost Recovery Authority which was charged with the responsibility of evaluating, analyzing and recommending revenue generating options under the Missouri River cost recovery program. Copies of the Missouri River Cost Recovery Authority's report, the Board of Water and Natural Resources' Water Initiative report, and 1988 water initiative legislation are submitted for the record.

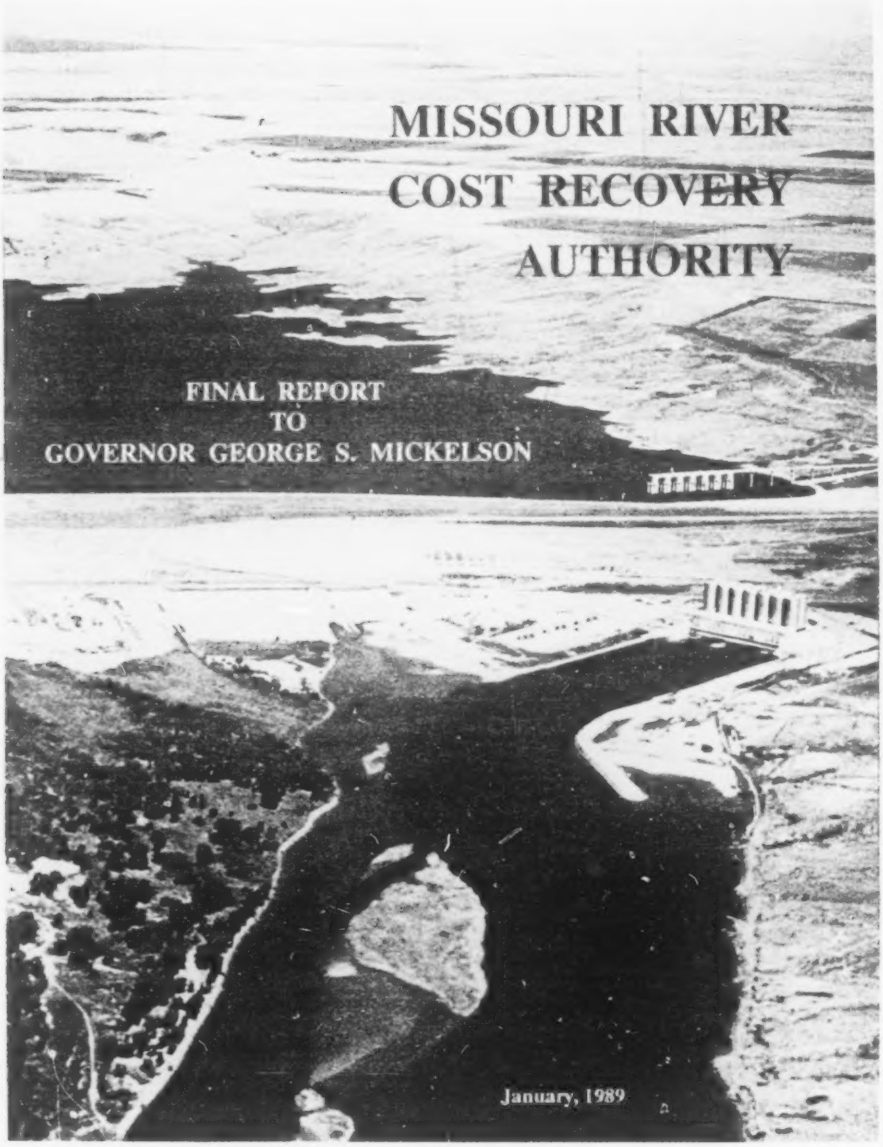
South Dakotans realize that traditional large-scale Pick-Sloan irrigation development is not realistic given current environmental, economic and political conditions, and that water development today operates under a much different set of rules than in the 1940s and 1950s. The South Dakota Pick-Sloan water initiative recognizes and identifies contemporary water projects such as smaller scale irrigation projects near the Missouri River like the Lake Andes-Wagner/Marty II Unit, the rehabilitation of existing systems like the Belle Fourche irrigation project, the development of rural domestic water supply systems like WEB, Mni Wiconi, and Mid-Dakota, and the need for fish and wildlife enhancement.

South Dakota recognizes the need for changes in national water development policy, and we support this new direction. The United States Congress and South Dakota have worked together in the past to develop unique water development projects that benefit our state and nation. The recently authorized Mni Wiconi rural water system and the Mid-Dakota rural water system, whose authorizing legislation is presently before Congress, are excellent examples of contemporary projects proposed for construction by the Bureau of Reclamation. Expansions and improvements to existing rural and municipal water supply systems are also needed to eliminate public health problems and help stabilize or improve the economy of the state. South Dakota is committed to working with Congress and federal agencies to continue to address these needs.

South Dakotans are proud of our environment and are active in maintaining and improving wildlife, environmental and aesthetic resources. South Dakota has already accomplished a great deal in the area of wetlands restoration and we plan to do more. South Dakota has identified several potential projects which would improve the central flyway wildlife habitat through wetland and riparian restoration. The state has just entered into a multi-party agreement with the U.S. Fish and Wildlife Service, the National Wildlife Federation, and Ducks Unlimited for a wetlands restoration project at Lake Thompson as part of the North American Waterfowl Management Plan. Several other projects have been proposed which would significantly increase the number of wetland acres in the central flyway. A federal trust fund has been proposed which could be used to finance these wildlife enhancement projects. We believe wildlife enhancement and water development should go hand-in-hand and are committed to incorporating wildlife enhancement components into the Lake Andes-Wagner project.

I wish to emphasize the Lake Andes-Wagner/Marty II project will contribute to the rural economic development of South Dakota as envisioned by the federal government and the Missouri River basin states when the Pick-Sloan plan was adopted in 1944. Other beneficial water uses, such as industrial and domestic water supplies, were also included as objectives of the Pick-Sloan plan. Economic rehabilitation was one of the commitments this nation made to the upper basin region when the Pick-Sloan plan was adopted. While the intended irrigation has yet to materialize in South Dakota, the fundamental economic development goals are as valid today as they were in 1944.

The Lake Andes-Wagner/Marty II project is a contemporary, workable, irrigation project. The project is a vital component of our rural economic development goal. Years of planning have resulted in a project with many innovative features designed to avoid double subsidies for surplus crops, provide water conservation during irrigation, and recognize the importance of wildlife enhancement as an important component of irrigation projects. These benefits, and the obvious rural and tribal economic development benefits, justify your support. We look forward to working with Congress, public power interests, environmental groups and others in developing, constructing and managing this important project.



MISSOURI RIVER COST RECOVERY AUTHORITY

FINAL REPORT
TO
GOVERNOR GEORGE S. MICKELSON

January, 1989

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The membership of the Missouri River Cost Recovery Authority has voted unanimously to approve the contents, findings, and recommendations of this report.

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The sound of the rampaging Missouri,
Bending the reeds again and again--
something inside us.........
Robert Bly

EXECUTIVE SUMMARY

Before the coming of the white man, the deep valley of the Missouri River with its tree covered banks and sheltered islands and its life giving waters nurtured and sustained the first agrarian society in what is now South Dakota. Here the Arikara Indians built their large cities. And when the Europeans finally entered this part of the country, they came by way of the Missouri River.

No dream has more occupied the creative intelligence of the citizens of South Dakota than the idea of harnessing the power and the waters of the Missouri River for the economic benefit and the enrichment of the lives of the people of this state. It is natural that this is so because in no other place does the Missouri River occupy such a prominent position in the collective identity of a citizenry than it does here in South Dakota. Our very sense of place is defined with respect to the river. We are East River or we are West River--our point of reference is the Missouri River.

The Pick-Sloan Promise

The Missouri River has always been viewed as a source of economic opportunity. As early as 1918 the citizens of the new state of South Dakota were developing plans for extracting a new form of wealth from the river--hydroelectric power. Although infighting and then the Great Depression intervened to thwart these plans, the potential for deriving major benefits had been established.

As the host state to four of the six mainstem dams built under the Pick-Sloan program, South Dakota contributed 530,000 acres of agricultural land--approximately one-third of the total project lands--to the program. This contribution came at a price. In a study conducted for the State of South Dakota, Dr. Jay Leitch, an economist from North Dakota State University, estimated that the people of South Dakota lose $79 million per year as a result of the economic activity foregone on the submerged lands.

In return for assuming these costs of lost land and tax base, the Pick-Sloan legislation offered South Dakota an authorization for some 972,000 acres of irrigation to strengthen and stabilize the state's economy. South Dakota's leaders were satisfied with the compromise reached in the bill, and South Dakota willingly joined as a partner in the development of the Pick-Sloan program.

The promises of Pick-Sloan have proven to be largely a disappointment to the people of South Dakota. Of the 972,000 acres of irrigation originally promised the state, only 24,100 acres, or just over two percent, have been developed under the program. Furthermore, it is a sad fact that the vast majority of the hydroelectric resource in South Dakota--South Dakota produces 67% of the entire Pick-Sloan system power--is exported to other states.

> *.......The rationale of the Cost Recovery Authority is that the Pick-Sloan system should, in fairness and in equity,...provide some measure of contemporary economic benefit to the people of South Dakota to offset these losses........*

In a companion 1987 study, Dr. Leitch concluded that the cost of the exportation of this power out of South Dakota and the corresponding need to purchase replacement power from out of state costs the citizens of South Dakota approximately $71 million every year.

Conversely, enormous benefits have been received in other parts of the basin, grossly out of proportion with the contribution of these states to the cost of the Pick-Sloan program. For example, the State of Nebraska, while contributing only a very small number of acres to the reservoir system, is scheduled to receive more than $800 million in Pick-Sloan irrigation assistance. Rate payers in South Dakota will have to repay these costs. Minnesota, which has only a tiny amount of land in the Missouri Basin, receives more Pick-Sloan hydroelectric power than any other basin state.

The Governor's Water Initiative thus began with a sincere belief that this situation is unfair to the people of South Dakota. There was optimism, though, that by working together with the various interests in this state and with the other states in the region, a program could be achieved that would meet the contemporary needs of the people of South Dakota.

The Governor's Water Initiative focused on two components. The first of these was a re-evaluated Pick-Sloan Projects Component to serve as a substitute for the huge original irrigation commitment. The second component, the Cost Recovery Component, was designed to produce revenues which could be utilized to provide cost share funds for the Pick-Sloan projects component and also to provide for other non-Pick-Sloan water needs.

The justification for the cost recovery concept was simple. The flooding of the 530,000 acres of land in South Dakota and the export of 70% of the hydroelectric energy contained in the waters within the reservoirs in South Dakota results in a net loss of economic activity--a cost--to the citizens of South Dakota of over $140 million every year.

The rationale of the Cost Recovery Authority is that the Pick-Sloan system should, in fairness and in equity to the citizens of South Dakota, provide some measure of contemporary economic benefit to the people of South Dakota to offset these losses.

The Pick-Sloan program has realized more than $4.5 billion in benefits from flood control, primarily in the downstream states. Many of the other states have received irrigation and other benefits far surpassing the cost which those states incurred. Many of the other states in the basin receive much more of the hydroelectric power generated in South Dakota than South Dakota does itself, even though these states have sustained no economic cost as a result of the construction of the projects.

What South Dakota is asking for via the cost recovery concept is not a handout or a special favor but simply for an equitable share of the regional benefits.

The Promise Kept?

The Authority found that, indeed, South Dakota has received benefits as a result of Pick-Sloan. South Dakota has received hydroelectric benefits, albeit to a lesser extent than some other states, and the benefits of the recreational development on the mainstem dams. Nevertheless, a serious disparity exists between the benefits promised to offset incurred costs and benefits actually received.

The Authority found that South Dakota receives only 17% of the hydropower generated by the system each year and only about 30% of the hydropower generated within the State of South Dakota each year. The Authority found that South Dakota is currently slated to receive only about $55 million in Pick-Sloan development assistance while Nebraska will receive more than $800 million, and North Dakota is slated to receive $526 million worth of benefits.

The Authority found it inequitable that five other basin states are scheduled to receive a combined total of more than $1.47 billion in irrigation aid to repay project construction costs, yet South Dakota, as host to four of the six mainstem dams, is scheduled to receive only $55 million. Irrigation aid planned and scheduled for the five other basin states includes: Nebraska - $800 million; North Dakota - $526 million; Wyoming - $63 million; Montana - $51 million; and Kansas - $35 million.

.......There is clearly a case for South Dakota to receive additional benefits from the Pick-Sloan system.......

The Authority found it inequitable that South Dakota preference power consumers are scheduled to pay more than $260 million in Pick-Sloan irrigation assistance yet will get back only about one-fifth of this amount.

The Authority found that South Dakota preference power consumers are scheduled to make average annual irrigation aid payments of approximately $5 million for Pick-Sloan irrigation projects in neighboring states. These annual payments amount to more than $29 per 10,000 kilowatt hours of Pick-Sloan power utilized per meter annually. South Dakota customers will make an average annual payment of $2.7 million for Nebraska irrigation aid alone.

The Authority found that if South Dakota were to realize an annual revenue stream of $1.5 million it would take the citizens of South Dakota 504 years to accrue the same dollar benefits which Nebraska is presently scheduled to receive in Pick-Sloan irrigation aid, despite the fact that Nebraska has very little land submerged under the reservoirs.

The Authority found that some of the options which it explored are in fact being utilized in other regions of the country and even in other Pick-Sloan states. For example, the state of Wyoming has already entered into a hydroelectric upgrading project on the Buffalo Bill Dam in Wyoming. For that project the state of Wyoming will receive payments of $2.2 million per year from the system. South Dakota power consumers will pay approximately $840,000 annually for the hydroelectric upgrading features of the Buffalo Bill Dam or approximately $4.95 per 10,000 kilowatt hours of power consumption.

There is clearly a case for South Dakota to receive additional benefits from the Pick-Sloan system.

A Chance for Equity

Senate Bill 138 which authorized the Cost Recovery Authority, precluded the Authority from recommending any option which might have even a small effect on power rates. The Authority found that with the exception of federal payments in-lieu-of-taxes, all other options would have some impact on electric rates. This is because, unlike the situation which existed two years ago, all flexibility is now gone from the Pick-Sloan rate-setting system.

Two years ago, the rate structure was above that necessary to meet annual power component payments. Funds in excess of current needs were utilized to prepay the power investment. Today, no excess funds are collected for development assistance to South Dakota. The reformulation of the Garrison project and investments in interest bearing power system improvements have totally consumed the dollars which were once available to provide development assistance for South Dakota. This does not mean that development assistance cannot be provided, only that to do so means recreating the development assistance revenue "cushion" that once existed.

> *.......Several options examined by the Authority, although not susceptible of recommendation under the constraints of Senate Bill 138, deserve further exploration by the state of South Dakota......*

Several options examined by the Authority deserve further exploration by the state of South Dakota, even though they could not be recommended under the constraints of Senate Bill 138. For example, hydropower upgrading of the Oahe and Fort Randall generation facilities has the potential as one way for South Dakota to derive some benefits from the system.

Because of the total lack of flexibility in the system, however, and because the incremental cost of providing a revenue stream to this state would exceed the current cost of wholesale preference power, power rates would be increased slightly in order to pursue this objective. There is clear precedent for the state to be involved in such a venture, however, and this is an option that warrants further exploration.

Similarly, the Gregory County Hydroelectric Pumped Storage project, is much more speculative in terms of market feasibility. Because of the uncertainty of the demand for the output from this facility, further exploration of the Gregory County Hydroelectric project should be performed by the Board of Water and Natural Resources in order to determine initially whether there is sufficient interest in the project's output to warrant further expenditure of dollars.

In addition to the promised irrigation benefits under Pick-Sloan, the State of South Dakota was allocated 168 megawatts of electric generating capacity from the Pick-Sloan system to pump water for reclamation projects. Of this 168 megawatts of pumping power South Dakota currently uses only 13.6 megawatts for project pumping.

The Authority examined three options which appear to have some future viability for putting this irrigation hydropower to benefit for South Dakota. The first of these is to make the power available for South Dakota irrigation systems irrigating from Pick-Sloan facilities. This would have to be done pursuant to Federal Law and these systems would have to be fully integrated by law financially and physically into the Pick-Sloan system.

Preference power could also be made available for rural water systems in the State of South Dakota, particularly to those utilizing Pick-Sloan facilities as the water source. Again this would consume a small amount of hydropower, would result in a modest increase in rates, but would result in a transfer of power from consumers out of state to consumers within the state of South Dakota.

Lastly, the Authority determined that a mechanism could be established to remarket the South Dakota irrigation pumping power to existing Pick-Sloan customers with a slight increase in rates system wide to provide a revenue stream for South Dakota.

A $1.5 million revenue stream for South Dakota, generated from system wide power sales, could be obtained from a rate value of 0.15 mills per kilowatt hour which might or might not have to be assessed as a rate increase. This 0.15 mills per kilowatt hour is significantly less than the 1.6 mills per kilowatt hour which South Dakota preference power consumers are scheduled to pay for irrigation aid to the State of Nebraska and the .49 mills per kilowatt hour which state power consumers will pay to the Buffalo Bill Dam upgrading project in Wyoming.

The Authority also found that a payment in-lieu-of-taxes proposal either from the Pick-Sloan system, which would raise rates slightly, or from direct federal revenues is an option warranting further exploration.

Although the Authority could not find an option which it could recommend for legislative action this year, the Authority does not wish to convey in any sense the impression that its efforts were futile or that the state and other interests within the state ought not go forward in pursuit of equity for the State of South Dakota. The costs incurred by the state for Pick-Sloan are real. The inequities which the citizens of the state must live with are real.

It is a fact that we are going to pay out large amounts of money for development projects in other states even though the dams and the generating facilities and the water that drives them are within our state. We will end up paying, through our power rates, far more in assistance to these other states than we will receive.

We export 70% of the power generated here in South Dakota and then buy back from generators in other states the power needed to replace the power that we send out of state. It is we who then pay the costs to those who mine the coal: the costs of severance taxes, property taxes, and the general economic benefits that that business activity provides in other states.

A View for the Future

The Authority believes that it is time for the state of South Dakota to go on record, that these inequities be rectified, that the costs incurred by the State of South Dakota for the Pick-Sloan system should be recovered, at least in part, and that it is appropriate that this be achieved through the Pick-Sloan system.

This can not be achieved, however, by the State of South Dakota acting alone. There is a larger community of interests which must play a positive role if recovery of Pick-Sloan costs and equity is ever to be achieved for South Dakota. This effort must begin at home. The preference power community and the inves-

> *.......The inequities which the citizens of the state must live with are real.......*

tor owned utilities of South Dakota are both key players in this effort.

Leadership must begin at the state government level as it has in this case, but that leadership alone cannot carry the day in a complex enterprise with players as powerful as those involved in the Pick-Sloan system.

Furthermore, the Authority recognizes that the State of South Dakota is not an island. States in the basin are part of an interconnected system of relationships involving water, irrigation and other project benefits and hydropower. History, state and regional loyalties and jealousies and the various self-interests, both imagined and real, play a role in the real-world decision-making that must take place if the cost recovery concept is ever to see the light of day.

> *.......Pick-Sloan still holds great promise for the State of South Dakota and if we are to succeed in bringing its promises to fruition for ourselves and our childen we must find ways to work together.......This cannot be achieved, however, by the State of South Dakota acting alone.*

The Authority takes great heart in Governor Mickelson's initiative in forming an Upper Basin Governors Association as a first step in establishing the kind of interstate cooperation that we must have if we are to achieve equity for South Dakota. The Authority also applauds Governor Mickelson's continued support for the Missouri Basin States Association as a vehicle for maintaining a communication link and a means of developing relationships with all of the states in the Missouri River basin.

The Authority urges the Governor, the Legislature, the public power and investor owned electric industry of South Dakota, the water development community and all interested citizens to arrive at a specific, concrete proposal for achieving a cost recovery revenue stream for South Dakota.

Pick-Sloan still holds great promise for the State of South Dakota, and if we are to succeed in bringing its promises to fruition for ourselves and our childen, we must find ways to work together.

Missouri River Cost Recovery Authority Report

PART ONE - GENERAL BACKGROUND

Missouri River Cost Recovery Authority Report

Chapter One - Introduction

Historical Overview - Missouri River Development

The waters of the Missouri River have long been viewed as a source for economic opportunity. Beginning in 1673, the French were the first non-Indians to survey the river's potential when Jacque Marquette and Louis Jolliet discovered the river's mouth. Over the course of the next hundred years, other French, Spanish, Canadian, and British parties explored the river including the Verendrye Expedition which, in 1743, claimed what is now South Dakota for France.

U.S. acquisition of Louisiana Territory in 1803 opened the Missouri River to commerce and allowed President Jefferson to proceed with his plan to explore the region. By 1806, Captains Merriweather Lewis and William Clark had surveyed the Missouri River and reported that numerous trade opportunities were available in such areas as furs, minerals, and agriculture and that the river was a promising transportation artery. Within 15 years, steamboats were being used to transport goods and services to and from St. Louis with passenger and commercial river traffic reaching a peak in 1858.

> *.......South Dakota voters approved a constitutional amendment allowing the state to own and operate hydroelectric power plants.......the 1919 Legislature created a Hydroelectric Commission ....*

South Dakota Plans To Develop The Missouri River

The advent of rail transportation in the Midwest signaled an end to navigation on the upper Missouri. But as navigation declined in importance, the region's expanding population and economic base placed new demands on the River--demands for such features as hydroelectricity, flood control, and water for irrigation.

Dams were the logical solution to the area's contemporary needs. Thus in 1918, State Historian Doane Robinson published a booklet titled *Dam Sites On The Missouri River In South Dakota* which identified seven possible sites for hydroelectric dams ranging from Mobridge in the north to Fort Randall in the south. In November of that same year, South Dakota voters approved a constitutional amendment allowing the state to own and operate hydroelectric power plants and to go into debt to finance such projects. Additionally, the 1919 Legislature created a Hydroelectric Commission and appropriated $50,000 to conduct a feasibility study.

Regional jealousies eventually caused the issue to be settled when voters rejected a proposal to construct a state-owned dam near Mobridge. Interest in Missouri River development, however, resumed in the 1930's spurred by such occurrences as the Depression, construction of the Ft. Peck Dam in Montana, creation of the Tennessee Valley Authority, and devastating downstream floods. These occurrences prompted the Army Corps of Engineers and the Bureau of Reclamation to launch the most ambitious and far-reaching development effort the State had ever seen.

> *.......South Dakota was promised federally-financed economic development.........Irrigation was the foremost of these.......*

The Flood Control Act of 1944

In May of 1943, the House Committee on Flood Control authorized the Corps of Engineers to make a new flood control survey of the Missouri River. Led by Colonel Lewis A. Pick, the Corps' proposal contained three major features which dealt primarily with navigation and flood control. Under the Pick Plan, levees were to be constructed from Sioux City to the mouth; a nine-foot channel was to be maintained for navigation; and five mainstem dams were to be constructed between Sioux City and the Ft. Peck reservoir

Four years previously, the Bureau of Reclamation was requested by the Senate Commerce Committee to survey the Missouri basin for potential reservoir sites and irrigable lands. Under the direction of Assistant Commissioner W. Glenn Sloan, the Bureau produced the Sloan Plan which was a multipurpose plan with irrigation as its major thrust. This plan called for more dams overall but for only three mainstem dams, all of which were to be in South Dakota.

The resulting Pick-Sloan Plan was a combination of the respective plans. It called for five mainstem dams at Garrison, Oahe, Big Bend, Ft. Randall, and Gavin's Point with modifications to Ft. Peck dam. The plan also included more than 100 potential reservoirs, several hundred irrigation tracts, pumping systems, levee systems, a navigation channel, and areas for wildlife and recreation uses.

The legislation which was proposed to create the Pick-Sloan program was the 1944 Flood Control Act. But before it could be passed, agreement was necessary on one fundamental issue. The upstream states were fearful that downstream navigation could commit too much water at the expense of upstream uses. Downstream states wanted reliable water flows for navigation but more importantly, they wanted protection from floods. The issue was settled through the O'Mahoney-Milliken Amendment which stated in effect, that upstream consumptive uses - including irrigation, industrial, and domestic uses - had explicit preference over downstream navigation uses. President Roosevelt signed the Act into law in December, 1944.

The Pick-Sloan Program - Costs and Promises

In reaching agreement on the Pick-Sloan plan, the upstream and downstream states along with the federal government, acted on the basis of a fundamental premise: each state was to receive federally-financed economic development at a level commensurate with the sacrifices which each was asked to make. These benefits were to come predominantly from the four major project purposes of flood control, navigation, irrigation, and hydropower.

As host state to four of the six mainstem dams, South Dakota contributed 530,000 acres of agricultural bottomland --approximately one-third of the total project lands-- to the Pick-Sloan program. Correspondingly, the state also contributed the economic activity associated with these acres and relinquished its right to develop state-owned hydropower facilities on the Missouri River.

In return for these costs, South Dakota was promised federally-financed economic development from the project's four primary beneficial uses. Irrigation was the foremost of these with over 972,000 acres being slated for development in the state.

Hydropower production was considered to be a secondary benefit of the Pick-Sloan program at the time. Revenues received from the sale of power were to be used to pay for most of the hydroelectric generation features of the dams and a portion of the irrigation development costs. Additionally, cost-based power from the dams was to be provided to irrigation projects while surplus power was to be provided to "preference customers" at cost-based rates.

Flood control and navigation were to provide indirect benefits to South Dakota. Controlled water flows were to prevent floods in certain areas and protect streambanks. Navigation south from Sioux City was to support the marketing of state produce.

To date, 24,100 acres of irrigation or approximately 2% of the intended (South Dakota) Pick-Sloan acres have been developed.......Additionally, the Hilltop and Gray Goose Irrigation Districts.......have been authorized for physical and financial integration.......

Benefits To South Dakota From Pick-Sloan

The benefits which have accrued to South Dakota from the Pick-Sloan program vary from its original intent. Certain aspects of the program have not been fulfilled; some have been realized in different forms; while others have been exceeded. An assessment of project benefits to South Dakota is as follows:

Irrigation - The primary economic return to the state was to come in the form of irrigation development. More than 972,000 acres were to have been developed and served from several irrigation projects. Such projects were also to receive power from the dams to meet lift requirements at a rate of 2.5 mills/kwh. Lift power is defined as the power sufficient to deliver water to the field with approximately ten feet of head. The rate of 2.5 mills/kwh was established in Senate Document 191 which stated, "experience and study indicate that the cost per kilowatt-hour should not exceed 2.5 mills for energy delivered to major project pumping plants".

The Grassrope Irrigation Project on the Lower Brule Indian Reservation was one of the first irrigation projects in South Dakota to benefit from the pumping power provision. The Grassrope project receives power at a rate of 2.5 mills/kwh to meet lift requirements and the preference power rate for pressurization requirements. A recent amendment to Public Law 97-273 also allows for irrigation pumping power to be provided to Lower Brule Sioux Tribe irrigation projects including the Clark Ranch.

To date, 24,100 acres of irrigation or approximately 2% of the intended Pick-Sloan acres have been developed. Additionally, the Hilltop and Gray Goose Irrigation Districts (5000 acres combined) have been authorized for physical and financial integration into the Pick-Sloan program and the rehabilitation work on the Belle Fourche Irrigation Project is being performed as a function of the program.

Domestic Use - Federal legislation was recently passed authorizing construction of the Mni Wiconi Rural Water project. This legislation is unique to South Dakota in that it provides for project power (originally identified for the Pollock-Herreid Irrigation Project) to be utilized by the Mni Wiconi rural water system (similar precedent-setting legislation was passed for North Dakota in 1986). The power rate for this project is to be at the preference power rate as identified by the Western Area Power Administration for the Eastern Division.

> *.......the Mni Wiconi Rural Water project.......is unique to South Dakota in that it provides for project power (originally identified for the Pollock-Herreid Irrigation Project) to be utilized by the system.......*

Hydropower - The Pick-Sloan hydropower component has exceeded its original expectations of 758,500 kilowatts of capacity. By 1982, nearly 2.4 million kilowatts of installed capacity produced approximately 10 billion kilowatt-hours per year. South Dakota receives 17.2% of the power which is marketed from the dams.

Navigation - The direct benefits stemming from the Pick-Sloan navigation component are realized in the downstream states of Iowa, Nebraska, Kansas, and Missouri. South Dakota receives little benefit from the navigation component of the Pick-Sloan program.

Flood Control - The Corps of Engineers estimates that the Pick-Sloan program has prevented more than $4.5 billion in flood damage, primarily in downstream states, since 1957 (1986 dollars).

Missouri River Cost Recovery Authority Report

Chapter Two - Governor Mickelson's Water Initiative

Concept and Objectives

In August of 1987, Governor George S. Mickelson announced a water initiative process to resolve South Dakota's claims under the 1944 Missouri River Pick-Sloan program. This initiative was founded on the realization that large-scale irrigation projects such as the Oahe Project face serious economic and political obstacles at both the state and federal levels and that the state's contemporary water development needs have changed from projects dealing solely with irrigation to ones having a combination of irrigation and water supply. Additionally, the initiative was proposed as a vehicle to formulate a state-wide consensus on water issues and to guide state water development activities into the 21st century.

Ultimately, the purpose of Governor Mickelson's Water Initiative is to ensure that South Dakota shares equitably in the Pick-Sloan program. More specifically, the initiative seeks to obtain the following objectives:

1. Address South Dakota's contemporary water development needs through a revitalized Pick-Sloan program;
2. Obtain a level of benefits commensurate with the costs and sacrifices which South Dakota contributed to the Pick-Sloan program;
3. Devise acceptable water development alternatives to traditional large-scale Pick-Sloan irrigation projects;
4. Advance a realistic settlement proposal for unfulfilled Pick-Sloan promises to South Dakota; and,
5. Have South Dakota speak with a unified voice in Washington, D.C. regarding water development issues.

.......Ultimately, the purpose of Governor Mickelson's Water Initiative is to ensure that South Dakota shares equitably in the Pick-Sloan program.......

Directives and Input

Governor Mickelson directed the Board of Water and Natural Resources (BWNR) to investigate potential settlement alternatives and to propose a legislative package which could serve as the basis for a settlement agreement. The BWNR was to consider traditional water development avenues as well as non-traditional approaches. Further, the BWNR was to propose a realistic settlement which addressed South Dakota's contemporary water development needs.

As the first step in the Initiative process, the BWNR held eight public meetings in 1987 for the purpose of obtaining comments about the Water Initiative and to develop recommendations as to what should be included in the state's settlement package. Meeting participants supported the need for additional water development revenue and recommended that it be deposited into the state's Water Facilities Construction Fund. Such funds could then be utilized for infrastructure development, lake restoration, municipal projects, rural water systems, groundwater protection, and cost-sharing for larger projects.

Attendees also indicated the need to develop an effective strategy to secure Congressional approval of a Pick-Sloan settlement proposal. Many persons stated that if South Dakota was to resolve the Pick-Sloan issue, a statewide consensus would have to be developed before approaching Congress and that such a consensus position would have to be advanced in the form of a single settlement package. These recommendations stemmed from the concern that Congress is becoming less inclined to recognize its Pick-Sloan commitment and that the state must carefully and realistically draft a strategy for realizing necessary water development projects.

> *.......The proposed Missouri River cost recovery program is a sound concept worthy of being pursued aggressively, but several policy and technical issues must be resolved before proceeding with actual implementation.......*

BOARD OF WATER AND NATURAL RESOURCES
WATER INITIATIVE CONCLUSIONS

- The State must move forward with sound, realistic water projects in order to solve current water supply needs and to demonstrate the viability of the Pick-Sloan program. If such development does not occur, the state will suffer economically, and outside interests will seize the opportunity to dismantle the Pick-Sloan program and raise hydropower rates.

- The State must move forward with a settlement package in a careful and deliberate manner to avoid adverse effects on South Dakota power consumers.

- Nonfederal financing mechanisms are feasible and appropriate for the hydropower component of the Gregory County pumped storage project, although federal funding is appropriate and will be requested for the water delivery portions of the Gregory County project.

- The proposed Missouri River cost recovery program is a sound concept worthy of being pursued aggressively, but several policy and technical issues must be resolved before proceeding with actual implementation.

BOARD OF WATER AND NATURAL RESOURCES WATER INITIATIVE CONCLUSIONS (Cont.)

- The Board notes that an agreement has been reached between Congress and the State of North Dakota to settle North Dakota's Pick-Sloan claims through authorization for a Garrison Diversion Unit project that is greatly reduced in irrigation acres, but includes provisions for rural water development and fish and wildlife mitigation.

- The Board also notes that the Garrison settlement has resulted in the elimination of additional power rate adjustment flexibility in the Pick-Sloan repayment schedule.

- South Dakota has suffered several billion dollars in damages and foregone economic activity as a direct result of the Pick-Sloan program including: $1.1 billion in foregone economic activity resulting from the inundation of reservoir lands, $60 million per year in foregone economic activity resulting from the federalization of opportunities to produce hydropower on the Missouri River, $3.2 billion worth of irrigation projects promised as part of the Pick-Sloan compromise, foregone economic activity that would have been generated by those irrigation projects, $75 million in bank erosion damages, $35 million in fish and wildlife and other environmental damages, and lack of reimbursement when South Dakota's opportunity to develop hydropower resources was severed.

- There is sufficient historical and economic justification to put forth a long overdue Pick-Sloan settlement package and to move forward with water projects that will translate the Pick-Sloan commitment to South Dakota into reality.

.......South Dakota has suffered several billion dollars in damages and foregone economic activity as a direct result of the Pick-Sloan program.......

BOARD OF WATER AND NATURAL RESOURCES WATER INITIATIVE RECOMMENDATIONS

* The state should pursue a Pick-Sloan settlement package.

* The state should pursue the Missouri River cost recovery program to provide a revenue stream for cost sharing and future water development purposes.

* The state should identify and pursue specified water development projects.

* The state should vigorously pursue the Gregory County Pumped Storage project utilizing nonfederal financing sources for the hydropower portion of the project and federal financing for the water supply features through the state's Pick-Sloan settlement package.

* The state should seek authorization of the CENDAK project, but that actual construction of the project be deferred until economic and political conditions are more favorable.

Missouri River Cost Recovery Authority Report

Chapter Three - Missouri River Cost Recovery Program

Senate Bill 138

In December of 1987, the Board of Water and Natural Resources presented its report to Governor Mickelson and members of the South Dakota Legislature. The report's findings and recommendations then served as the basis for Senate Bill 138 which was titled, *An Act to authorize and provide for a settlement of South Dakota's claims under the Pick-Sloan Missouri Basin Program including the establishment of a Missouri River cost recovery authority, and to declare an emergency.* This bill was subsequently passed by the South Dakota Legislature and signed into law by Governor Mickelson in March of 1988.

> *.......the Act directed the state to proceed as quickly as possible to enact and implement at the state and federal levels a settlement.......of South Dakota's claims resulting from damages and unfulfilled federal obligations to South Dakota relating to the Pick-Sloan Missouri basin program.......*

The Act directed the state to proceed as quickly as possible to enact a settlement of South Dakota's claims from damages and unfulfilled federal obligations stemming from the 1944 Flood Control Act. These damages and obligations include the loss of nearly 530,000 acres of land inundated by four of the mainstem dams; failure of the federal government to develop 972,000 acres of irrigation; an inequitable distribution of benefits and costs among the Missouri basin states; environmental and bank erosion damages caused by construction and operation of the dams; loss of more than $1.1 billion in foregone economic activity; and, the loss of opportunity to develop the hydropower resources of the Missouri River on behalf of the people of the state.

The settlement framework established by Senate Bill 138 consisted of three primary elements: short-term objectives; long-term objectives; and the creation of the Missouri River Cost Recovery Authority. These elements are further described as follows:

Short-term Objectives - Short-term objectives consist of water development projects which are ready for congressional action. These projects are ones which are to be completed at federal expense subject to nonfederal cost-sharing requirements. These projects are: 1.) completion of two projects already under construction - the Belle Fourche irrigation rehabilitation project and the WEB rural water development project; 2.) development of two projects proposed for construction for which planning has been completed - the Lake Andes-Wagner / Yankton Sioux (Marty II) irrigation project and the Lyman Jones, West River and Oglala Sioux rural water systems, renamed the Mni Wiconi Project in 1988 authorizing legislation; 3.) development of seven projects proposed for construction for which further planning is required - multipurpose water supply and irrigation features of the Gregory County Hydroelectric Pumped Storage Facility, James River flood control, the Mid-Dakota rural water system, Missouri River fish and wildlife mitigation, Missouri River streambank erosion control, integration into the Pick-Sloan program for Missouri River riverside irrigation projects, and rural and municipal water systems.

Long-term Objectives - Long-term objectives include future irrigation and hydroelectric power projects which fulfill the long-term objectives of the Board of Water and Natural Resources. These include the CENDAK Multipurpose Project and the Gregory County Hydroelectric Pumped Storage Project.

Missouri River Cost Recovery Authority - Senate Bill 138 established the Missouri River Cost Recovery Authority to evaluate, analyze and recommend options, including, but not limited to, state financed upgrading of Pick-Sloan hydroelecric power generation facilities, integration into the Pick-Sloan program of Missouri River riverside irrigation projects and state-financed development of hydroelectric pumped storage facility, under the Missouri River cost recovery program for providing revenues to the state. However, any option recommended by the Authority may not result in increased rates for consumers of existing federal hydropower, may not affect the eligibility under federal law for existing hydropower, and may not impair long-term wholesale power supply contracts.

Senate Bill 138 called for the Authority to submit its recommendations to the Governor and the Legislature during the 1989 legislative session.

Missouri River Cost Recovery Authority Process

On March 29, 1988 Governor Mickelson established the Authority and over the course of the next seven months, the Authority conducted public meetings for the purpose of soliciting input, reviewing cost recovery proposals, and formulating recommendations. The first seven meetings were generally structured to solicit information and input regarding the cost recovery authority process, options for generating cost recovery revenue streams, benefits and impacts of specified proposals, and other issues relating to water development in South Dakota. Additionally, representatives of water and power interest groups provided testimony at these meetings and offered recommendations for the Authority to consider. The Authority utilized subsequent meetings to draw its findings and conclusions.

The Authority retained Resource Management International, Inc. (RMI) of Sacramento, CA to provide technical analysis and professional advice in the evaluation of the various potential options. Under contractual agreement, RMI provided expert analysis on the following:

1) Analysis of Power Rate System/Ultimate Development;
2) Hydropower Upgrading;
3) Financing and Rate Impacts;
4) Gregory County Pumped Storage Project; and,
5) Technical Reviews.

The Authority also retained Shupe and Associates of Santa Fe, New Mexico to provide technical information and professional advice regarding water marketing in the United States.

The Pick-Sloan Program - How It Works

The 1944 Flood Control Act provided for Pick-Sloan program development costs to be allocated to the project's four primary purposes: flood control, navigation, hydropower generation, and irrigation. Flood control and navigation costs were to be nonreimbursable while hydropower generation and irrigation costs were to be reimbursable. Additionally, hydropower generation costs were to be repaid with interest while irrigation costs were to be interest free.

The Corps of Engineers was assigned the task of allocating costs to the program's four primary functions. In 1958, the Corps published a report titled *MISSOURI RIVER MAINSTEM RESERVOIR SYSTEM ALLOCATION OF COSTS* which divided the federal investment among the respective components. Figure 3-1 identifies these components and allocated costs.

Irrigation development was intended to be the primary economic compensation to South Dakota for the land, tax base, and opportunities for hydropower development which were lost through creation of the dams. As part of this compensation, the original Pick-Sloan plan called for five million acres to be developed basin-wide for irrigation. In 1958, this figure was revised to three million acres with South Dakota slated to receive 616,000 acres of irrigation development. Correspondingly, approximately 540 megawatts of hydropower were identified and reserved as pumping power for irrigation projects with South Dakota to receive approximately 168 megawatts of this amount. Further, irrigation construction costs were to be repaid only up to an individual irrigator's ability to pay. The remaining costs, generally figured to be 85% of construction costs, were to be repaid from power revenues and general tax revenues in the form of interest rate subsidies.

The 1958 Corps study further determined that 21.4% of the project's power generation capacity would be utilized by irrigation. Consequently, 21.4% of the costs allocated to the power component were suballocated to the irrigation component. This action resulted in the transfer of ap-

1958 Pick-Sloan Allocated Costs (In Thousands)

Pick/Sloan Component	Nonreimbursable	*Reimbursable w/interest	Reimbursable w/out interest
Flood Control	$194,180		
Navigation	126,541		
Power		$752,225	
Irrigation			$177,522
Subtotals	$320,721	$752,225	$177,522

Total Pick-Sloan Program Cost = $1,250,468

*Reimbursable interest charge = 2.5%

SOURCE: 1958 Allocation of Cost - Corps of Engineers

Figure 3-1

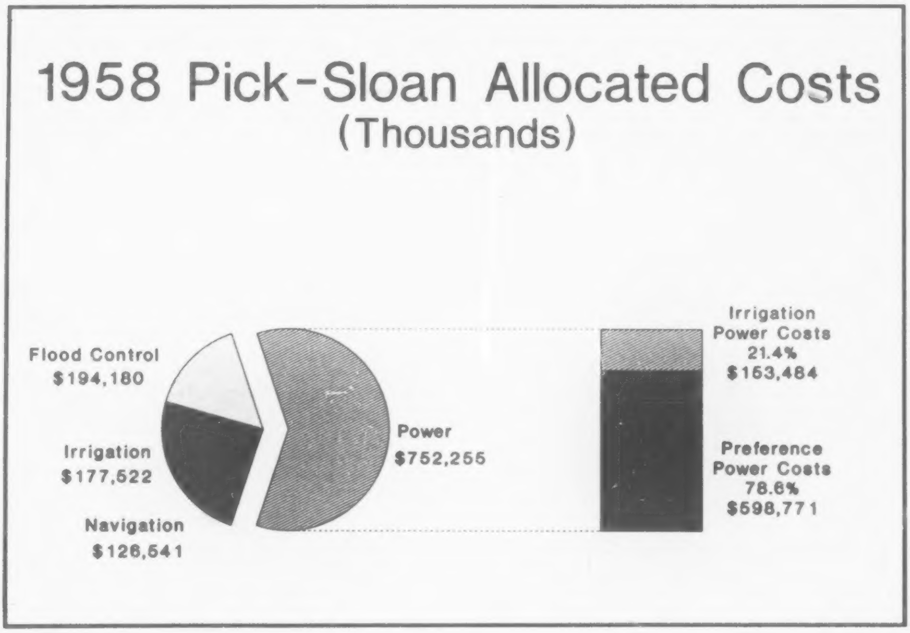
proximately $153.5 million from the power component to the irrigation component for repayment. (See Figure 3-2.)

The allocated cost structure implemented in 1958 was utilized by the Bureau of Reclamation and the Western Area Power Administration to establish annual hydropower rates for twenty-eight years. Then in 1986, the Garrison Diversion Unit of the Pick-Sloan program was reformulated. This action revised the total number of acres which were to be irrigated in North Dakota under Pick-Sloan's ultimate development concept and the percentage of suballocated power costs. Specifically, these changes were:

1) Approximately 800,000 acres of planned irrigation were deauthorized in North Dakota;
2) The pumping power identified for irrigation was decreased to 398 Mw;
3) Suballocated power costs were reduced from 21.4% to 15.8%; and,
4) Approximately $129 million in debt was transferred from irrigation to the power component.

The total number of Pick-Sloan irrigated acres in place or under construction today is approximately 20% of the total identified under the ultimate development concept. To date, South Dakota has realized 24,100 acres of irrigation development or

Figure 3-2

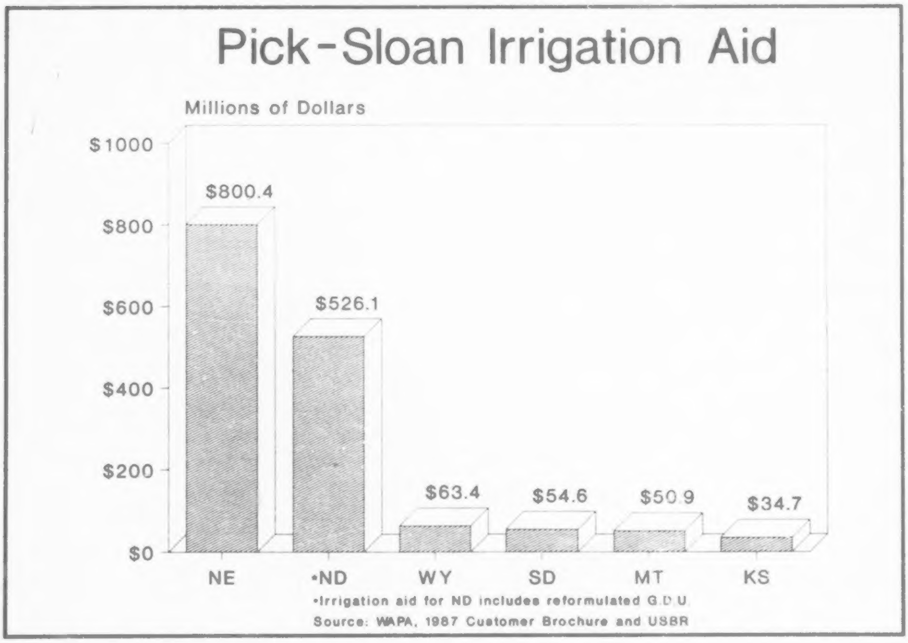


approximately 2% of the total amount originally slated for development. Figure 3-3 identifies the amounts of irrigation aid which the U.S. Bureau of Reclamation has identified and WAPA has scheduled for developed and planned projects in the Pick-Sloan Missouri River Basin Program.

WAPA has estimated that more than $4.5 billion will be required to complete the ultimate development concept (1987 costs). This is further identified in the annual power repayment study to be an annual cost of $55,381,000 in the years of 2036 to 2146. South Dakota is identified to receive approximately 616,000 acres of irrigation development which is approximately one-third of the total irrigation remaining to be developed. Assuming that ultimate development occurs, South Dakota would receive approximately $1.5 billion in irrigation aid with an annual allotment of $18,116,000 in the years of 2065 to 2146.

From a power allocation standpoint, South Dakota is to receive approximately 168 megawatts of Pick-Sloan hydropower for irrigation. South Dakota currently uses 7.5 Mw of this irrigation pumping allocation and 6.1 Mw is scheduled for use by the Mni Wiconi rural water system leaving a balance of 154.4 Mw. Because ultimate development has not occurred, preference customers have contracted for that portion of the identified hydropower which remains reserved in 1988 but has not yet been utilized for irrigation. Such contracts contain provisions for withdrawal of the project power for authorized Pick-Sloan purposes upon written notice five-years prior to actual withdrawal. Figure 3-4 shows where this hydropower is presently being utilized.

Figure 3-3



•Irrigation aid for ND includes reformulated G.D.U.

Source: WAPA, 1987 Customer Brochure and USBR

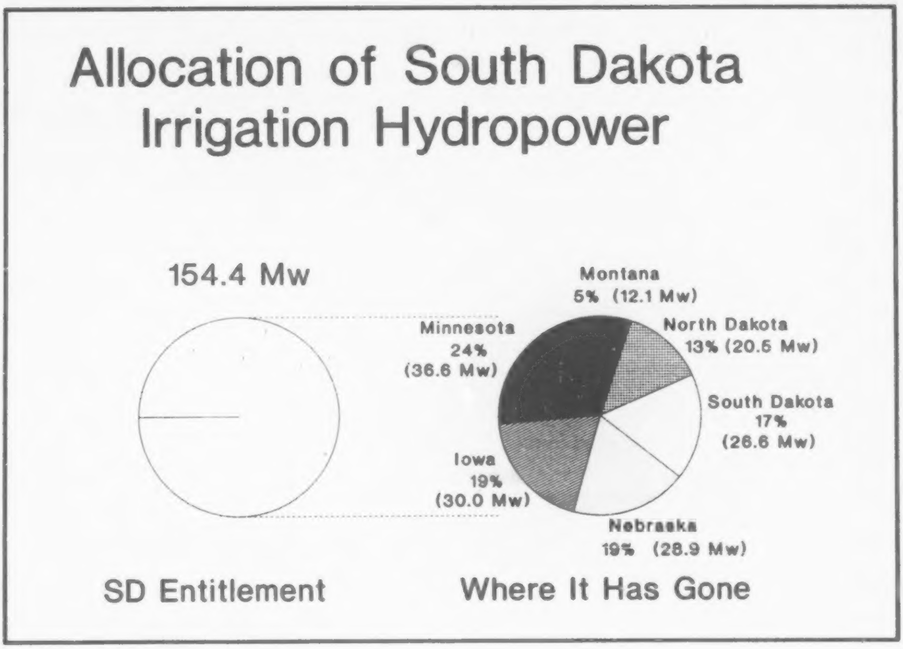

Allocation of South Dakota Irrigation Hydropower
154.4 Mw
Montana
5% (12.1 Mw)
North Dakota
13% (20.5 Mw)
Minnesota
24%
(36.6 Mw)
South Dakota
17%
(26.6 Mw)
Iowa
19%
(30.0 Mw)
Nebraska
19% (28.9 Mw)
SD Entitlement
Where It Has Gone

Figure 3-4

Missouri River Cost Recovery Authority Report

PART TWO - FINDINGS AND RECOMMENDATIONS

Missouri River Cost Recovery Authority Report

Chapter Four - Issues Studied

Issues

The Pick-Sloan program stands as one of the most comprehensive water development projects ever proposed in the United States. It encompasses a wide range of water development issues and attempts to address diverse water needs in states throughout the Missouri River Basin. Enacting a settlement of South Dakota's claims under the 1944 Flood Control Act, therefore, requires an understanding of a broad spectrum of complex and interrelated issues.

Issues examined by the Missouri River Cost Recovery Authority can be categorized into four areas. These are Repayment System Adjustments, New Hydropower Development, Alternative Uses of South Dakota's Irrigation Pumping Power, and Water Marketing. These categories are further described in the following sections.

> *.......Hydropower Upgrading...was envisioned as a means to produce additional hydropower and thereby recover South Dakota's costs through a revenue stream.......*

Repayment System Adjustments

Certain adjustments to the Pick-Sloan repayment system have the potential for releasing revenues which, in turn, could potentially provide revenues for South Dakota's cost recovery. Specific issues which were examined in this regard include: Power Repayment Study/Flexibility, Reallocation of Costs, Payment-In-Lieu-of-Taxes, and Refinancing High Interest Investments.

System flexibility is the ability of the Pick-Sloan power repayment study to be adjusted for changes in assumptions without affecting rates. If sufficient flexibility existed in the system, revenues could be made available to be used to provide cost recovery payments to South Dakota.

Reallocation of Costs was investigated to determine if a revised allocation of Pick-Sloan costs could create flexibility from which cost recovery revenues could be generated. Payment-In-Lieu-of-Taxes was evaluated as a means by which South Dakota costs could be recovered through payments either from Pick-Sloan or from the federal government directly. Refinancing High Interest Investments was investigated to determine whether revenues could be made available for cost recovery by refinancing existing federal debt on certain Pick-Sloan components.

New Hydropower Development

New hydropower development deals with potential opportunities which the State of South Dakota may have to develop or expand hydroelectric facilities. Hydroelectric projects could be sponsored either singularly or in conjunction with federal or non-federal entities. Specific issues which were examined include Hydropower Upgrading and Gregory County Pumped Storage. Hydropower Upgrading, a concept to upgrade Ft. Randall and Oahe dams, was envisioned as a means to produce additional hydropower and thereby recover South Dakota's costs through a revenue stream. Gregory County Pumped Storage is yet another opportunity for the state to finance new hydropower production for the benefit of the region and in the process, realize a revenue stream to recover costs.

> *.......These alternatives are based on the premise that large-scale irrigation projects envisioned in the original Pick-Sloan program may not be realized in the foreseeable future. The Authority, therefore, examined other state water development needs which could benefit from this power.......*

Alternative Uses of South Dakota's Irrigation Pumping Power

This category addresses alternative uses for the irrigation pumping power originally allocated to South Dakota irrigation projects. These alternatives are based on the premise that large-scale irrigation projects envisioned in the original Pick-Sloan program may not be realized in the foreseeable future. The Authority, therefore, examined other state water development needs which could benefit from this power. Specific issues which were examined include: creation of a South Dakota Power Marketing Authority, riverside irrigation integration, and providing preference power for rural water systems.

The proposed South Dakota Power Marketing Authority was considered as a mechanism to remarket the hydropower designated for South Dakota irrigation projects.

Riverside irrigation and rural water integration were identified as a means by which existing irrigators and rural water users in the state could benefit from the power identified for use by federally developed Pick-Sloan irrigation projects.

Water Marketing

This category deals with water marketing and water marketing trends in the U.S. It examines South Dakota's water resources along with the opportunities which the state may have to market water from the Missouri River. Specifically, the issue which was examined is titled *Water Marketing*.

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The following chapters are a comprehensive and detailed review of the issues which the Authority investigated, the resultant findings which the Authority makes, and the Authority's recommendations to Governor Mickelson and the Legislature .

Missouri River Cost Recovery Authority Report

Chapter Five - Repayment System Adjustments

Power Repayment Study/Flexibility

The Western Area Power Administration (WAPA) is responsible for insuring that the reimbursable portion of the Pick-Sloan federal investment properly attributed to the power component is recovered through the sale of power. A review of power costs and revenues is conducted annually through a Power Repayment Study (PRS). The PRS provides the basis and support for proposed rate adjustments necessary to satisfy WAPA's charge of covering all annual expenses and repayment of the federal investment. This charge also requires that WAPA establish the lowest possible rate consistent with sound business practices.

WAPA relies on the U.S. Bureau of Reclamation and the Corps of Engineers to provide input data in order to calculate revenues, operation and maintenance expenses, replacements, energy estimates and debt repayment. A computer model is then formatted with the revenue requirements and a rate adequate to satisfy all requirements is calculated. Rates are determined to be adequate if the PRS indicates that:

1) Expected revenues are sufficient to meet all operation and maintenance expenses, purchased power and transmission expenses, and interest expenses on unamortized investment;
2) All federal investment allocated to power will be recovered within 50 years; all federal investment in replacements and transmission facilities is recovered within the expected service life of the investment (maximum of 50 years); and, the irrigation investment is recovered within the period established.

The Missouri River Cost Recovery Authority retained Resource Management International, Inc. (RMI) to conduct an analysis of the Power Repayment Study/Ultimate Development concept. The purpose of the analysis was to:

1) Identify flexibility within the PRS;
2) Evaluate OM&R expenses to determine if it would be beneficial to level future OM&R expenses via a straight-line method;
3) Identify how and when the PRS adjusts for water withdrawals as ultimate development occurs; and,
4) Compare the differences between the 1982 and 1986 power repayment studies.

For the purposes of this analysis, system flexibility is defined as the ability of the Power Repayment Study to be adjusted for changes in assumptions without changing hydropower rates. If flexibility were identified, that flexibility could be used to provide revenue or other benefits to recover a portion of South Dakota's Pick-Sloan costs.

RMI evaluated replacement expenses to determine if a change in existing methodology would create flexibility. Under the current PRS, replacement costs fluctuate radically. The consultant, therefore, gave consideration to levelizing these fluctuations to see if flexibility would be created.

RMI determined that it is not possible to level OM&R costs without impacting existing power rates due to the existence of "pinch-points". A "pinch-point" is the critical time frame when expenses exceed revenues. To compensate for pinch-points, debt-service is prepaid which, in effect, level future revenue requirements. In so doing, flexibility within the PRS is utilized and no opportunity exists to further prepay or levelize OM&R expenses.

The Authority also directed RMI to identify how reservoir water withdrawals, resulting from the activation of ultimate development projects, affected annual power repayment studies. RMI reported that in the Corps of Engineers' *1958 Allocation of Costs Study*, approximately 15% of the annual Missouri River flow above Sioux City, Iowa would be utilized for irrigation when ultimate development was achieved. Such water, however, was to be utilized for hydropower generation until withdrawn.

> *.......The delay in realizing irrigation development in South Dakota leaves water in the mainstem reservoir system, which is used to generate hydropower, and in turn, produces revenue.......*

The delay in realizing irrigation development in South Dakota leaves water in the mainstem reservoir system, which is used to generate hydropower, and in turn, produces revenue. If the PRS had scheduled water withdrawals to take place evenly over the development period (those withdrawals did not take place), the resultant increases in hydropower generation and revenue might provide an opportunity from which a revenue stream could be created.

RMI found that water withdrawals for South Dakota's planned irrigation projects are not scheduled until late in the PRS. As a result, the lack of water withdrawals for irrigation development does not affect the PRS and thus, no flexibility is available from which a revenue stream can be developed.

The Authority also requested that a comparison of the 1982 and 1986 Power Repayment Studies be completed to identify changes which may have utilized all flexibility within the PRS. The changes which were identified include:

1) A $1.0 billion increase in OM&R costs - WAPA estimates operation and maintenance costs for a period of 100 years. Annual costs for the agency's budget period or first five years include figures for new equipment, operation and maintenance costs, and extraordinary maintenance expenses. OM&R figures for the next 95 years are indexed projections based on prior experience. The estimated increase of $1.0 billion in OM&R costs from the 1982 PRS to the 1986 PRS is primarily a calculation based on the effect which inflation is expected to have on operation and maintenance costs.
2) A $256 million increase in power investments - Power investment increases are the result of cost reallocations stemming from the Garrison Diversion Unit Reformulation Act and from new facility additions to the system. The GDU Reformulation Act deauthorized 880,000 acres of irrigation in North Dakota; consequently, $73 million in suballocated irrigation costs were allocated back to the power

component along with $56 million in multi-use costs.

A total of $127 million in new power facility investments was also reflected in the 1986 PRS. These investments include:

- a) the Miles City, MT AC-DC converter station;
- b) the Great Falls, MT to Conrad, MT [illegible]0 KV transmission line;
- c) the Ft. Peck, MT to Havre, MT 161 KV transmission line;
- d) the Sydney, NE direct current tie facility;
- e) the Spence, WY to Thermopolis, WY 230 KV transmission line; and,
- f) several substations located throughout the region.

3) An $85 million increase in replacement costs - Replacement costs are estimated for the five-year budget period. The projected increase of $85 million in the 1986 PRS is primarily the result of cost indexing.

4) A $1.0 billion increase in interest costs - Prior to the Garrison Diversion Unit Reformulation Act, aid to irrigation was setting the power rate with the 1982 PRS having a rate-setting year of 2040. With the passage of the GDU Reformulation Act, $129 million was transferred from the irrigation component to the interest- bearing power component. This action along with the addition of new power investments and replacement costs served to increase the principal amount on which interest was due and also to change the rate-setting year to 2016. In order to keep power rates from rising, therefore, the repayment term was extended from 1998 to 2036. In so doing, additional interest charges were incurred resulting in $1.0 billion in increased interest charges.

.......A total of $127 million in new power facility investments was also reflected in the 1986 PRS (Power Repayment Study).......

5) A $77 million increase through Buffalo Bill - In 1982, the Wyoming Legislature authorized the state to financially participate with the Bureau of Reclamation in making modifications to the Buffalo Bill Dam. These modifications were for the purposes of obtaining additional water storage for irrigation, municipal and industrial use, and increased hydroelectric power generation. This project was then financially integrated into the Pick-Sloan Missouri Basin Program (P-SMBP) with a portion of the state's contribution allocated to the power component to be repaid from P-SMBP power revenues over 35 years. Wyoming's financial contribution to the hydroelectric upgrade portion of Buffalo Bill was $17 million and an additional $28 million is required in federal funding. WAPA has scheduled annual payments of $2.2 million to the state of Wyom-

ing, for its $17 million participation, as debt retirement to begin in 1991. The net effect of this project is an addition of $77 million to WAPA's rate base.

6) A $1.8 billion decrease in Irrigation Aid - The Garrison Diversion Unit Reformulation Act provided for deauthorization of 880,000 acres of planned irrigation in North Dakota. As a result, the projected economic aid which was to have gone for these acres was eliminated. This action, however, did not reduce the Pick-Sloan power rate base because deauthorization contributed to a shift in the "pinch-point". Thus, the power component, rather than the irrigation component, became responsible for setting the power rate.

The above changes were incorporated into the 1986 PRS effective January, 1988. These factors had the net effect of removing the flexibility which was in the PRS prior to 1986.

AUTHORITY FINDINGS
REPAYMENT SYSTEM ADJUSTMENTS

- The Authority finds that flexibility existed in the Power Repayment Study prior to 1986 because the power rate was set at a level sufficient to pay for irrigation aid, including development in South Dakota, and that this level was above that necessary to meet annual power component payments. Since 1986, however, increases in operation and maintenance costs, investments in power facilities, facility replacement costs, upgrading work on the Buffalo Bill Dam (including repayments to the State of Wyoming for its cooperative participation), and the reallocation of costs stemming from the Garrison Diversion Unit Reformulation Act have utilized the flexibility which once existed.

- The Authority finds it inequitable that five other basin states are scheduled to receive a combined total of more than $1.475 billion in irrigation aid to repay project construction costs incurred within their respective borders, yet South Dakota, as host to four of the six mainstem dams, is scheduled to receive only $55 million. Irrigation aid planned and scheduled for the five other basin states includes: Nebraska - $800 million; North Dakota - $526 million; Wyoming - $63 million; Montana - $51 million; and, Kansas - $35 million.

- The Authority finds it inequitable that South Dakota preference power consumers are scheduled to pay more than $260 million in irrigation aid of which only $9.5 million will go toward retirement of irrigation construction costs incurred on South Dakota irrigation projects.

AUTHORITY FINDINGS
REPAYMENT SYSTEM ADJUSTMENTS (Cont.)

* The Authority finds that South Dakota preference power consumers are scheduled to make average annual irrigation aid payments of approximately $5 million for Pick-Sloan irrigation projects in neighboring states (using 50 year straight line amortization at 0% interest). These annual payments amount to more than $29 per 10,000 kwh of WAPA power utilized per meter annually. Approximate annual payments which South Dakota preference customers are scheduled to make for irrigation projects in the respective states are:

State	Annual Payment	Per 10,000 kwh/WAPA
Nebraska	$2,700,000	$15.88
North Dakota*	1,800,000	10.59
Wyoming	207,000	1.22
South Dakota	187,000	1.10
Montana	180,000	1.06
Kansas	102,000	0.60
Total	**$5,176,000**	**$30.45**

Source: Calculations based upon WAPA Customer Brochure and USBR irrigation aid estimates.

* Includes GDU Reformulated

* The Authority finds (as a hypothetical comparison) that if South Dakota were to realize an annual revenue stream of $1.5 million, it would take 504 years to accrue the same dollar value of benefits which Nebraska is presently scheduled to receive in Pick-Sloan irrigation aid.

* The Authority finds that when the federal government settled its commitments to the State of North Dakota (GDU Reformulated), more than $100 million of project development costs were transferred from the irrigation component to the interest-bearing power component and that this amount is to be repaid from power revenues.

AUTHORITY FINDINGS
REPAYMENT SYSTEM ADJUSTMENTS (Cont.)

- The Authority finds that the 1986 Power Repayment Study included an increase of $256 million in power investments which resulted from: 1) the reallocation of $129 million from the irrigation component to the power component when the Garrison Diversion Unit Reformulation Act deauthorized 880,000 acres of irrigation in North Dakota; and, 2) $127 million in new construction including the Miles City, MT AC-DC converter station, the Great Falls, MT to Conrad, MT 230 KV transmission line, the Ft. Peck, MT to Haver, MT 161 KV transmission line, the Sidney, NE direct current tie facility, the Spence, WY to Thermopolis, WY 230 KV transmission line, and the construction of several substations located throughout the region.

- The Authority finds that the State of Wyoming, the Bureau of Reclamation, and the Western Area Power Administration jointly participated in hydropower upgrades on the Buffalo Bill dam and as a part of that cooperative venture, the State of Wyoming will receive payments from Pick-Sloan revenues of $2.2 million per year for 35 years making for a total of $77 million.

- The Authority finds that repayment of the Buffalo Bill Dam hydroelectric facility features over 50 years at 12.375% interest will cost $5,585,400 annually and translates into a cost of 78 mills/kwh. Buffalo Bill was integrated, however, into the Pick-Sloan program and utilized some of the flexibility which may have existed in the PRS.

- The Authority finds that South Dakota power consumers will pay approximately $840,000 annually (the difference between 78 mills and 8 mills) for the hydroelectric upgrading features of the Buffalo Bill Dam or approximately $4.95 per 10,000 kwh of WAPA consumption.

- The Authority finds that due to the current utilization of flexibility within the PRS, no opportunity exists to levelize OM&R expenses.

..............South Dakota preference power consumers are scheduled to make average annual irrigation aid payments of approximately $5 million (more than $29 per 10,000 kwh of WAPA power) for Pick-Sloan irrigation projects in neighboring states.......

AUTHORITY RECOMMENDATIONS
REPAYMENT SYSTEM ADJUSTMENTS

* The Authority has no recommendation concerning the Power Repayment Study/Flexibility issue because no flexibility exists in the current Power Repayment Study.

* The Authority recommends that the state, public power interests, and various involved agencies of the federal government enter into negotiations which will lead to settlement avenues from which an equitable share of benefits can be provided to South Dakota.

Reallocation of Costs

The effect of reallocating the suballocated and joint-use irrigation costs to the flood control and power components was investigated. The concept behind this investigation was to reduce reimbursable debt by transferring it to a nonreimbursable function such as flood control. The Authority further wished to identify the impact to the power component if reimbursable irrigation costs were to be borne by power.

RMI reported that WAPA is responsible for setting the lowest possible rate sufficient to meet all expenses. This rate is adequate when all OM&R costs and scheduled debt retirement payments are met. The retirement of federal debt is scheduled such that power costs are to be repaid in 50 years and irrigation costs within the term designated.

The "pinch-point" or critical period which is setting the current rate occurs during the years of 2015-2018. Had the "pinch-point" occurred after power costs were repaid (2036), aid to irrigation would have established the current rate. In this case, revenue would be collected based on the cost for aid to future irrigation projects but used to prepay the power debt.

Debt retirement of power costs, however, is the driving force behind the current rate. Any shift of reimbursable irrigation costs i.e., "irrigation aid", to a nonreimbursable function such as flood control, therefore, would have no effect on the current power rate nor would it create flexibility in the PRS.

.......if South Dakota were to realize an annual revenue stream of $1.5 million, it would take 504 years to accrue the same dollar value of benefits which Nebraska is presently scheduled to receive in Pick-Sloan irrigation aid......

AUTHORITY FINDINGS
REALLOCATION OF COSTS

- The Authority finds that the repayment of power costs, rather than irrigation costs, is setting the current rate.

- The Authority finds that reallocating reimbursable irrigation costs to a nonreimbursable function, such as flood control, would not create flexibility in the Power Repayment Study from which assistance for South Dakota water development projects could be provided.

- The Authority finds that $4.5 billion in flood damages have been prevented primarily in downstream states and that reallocating joint-use power costs to flood control, which is a nonreimbursable function, could provide the flexibility necessary for creation of a South Dakota water development project revenue stream.

- The Authority finds that reallocating Pick-Sloan costs must involve Congress and that such actions could increase power rates.

- The Authority finds that flood control and navigation projects identified for downstream states have essentially been completed while a majority of the planned irrigation projects for upstream states have not occurred.

.......$4.5 billion in flood damages have been prevented primarily in downstream states...reallocating joint-use power costs to flood control...could provide the flexibility necessary for creation of a South Dakota water development project revenue stream.......

AUTHORITY RECOMMENDATIONS
REALLOCATION OF COSTS

- The Authority makes no recommendation concerning the reallocation of Pick-Sloan costs because there would be no savings created in transferring irrigation costs to other functions.

Payment-In-Lieu-Of-Taxes

The concept of payment-in-lieu-of-taxes (PILT) was a result of the inability of one governmental agency to tax the property or operations of another governmental agency and is generally utilized when the basic resource base of the taxing entity is severed. PILT was devised as a means to compensate the host government entity for the loss of revenue which would have been generated by property taxes had the resource remained within its tax base.

The inclusion of provisions for payments to South Dakota from revenues generated by the mainstem dams is not without precedent. In the Boulder Canyon Project Adjustment Act of July, 1940, payments of $300,000 are authorized to be made annually to the states of Arizona and Nevada from power revenues as PILT. The authorization carries the restriction that should the states or other taxing authorities impose taxes on the project or on the power generated by the project, that amount of revenue must be deducted from the annual payments to the respective states.

The inundation of South Dakota lands due to the construction of the mainstem dams removed approximately 530,000 acres of bottomland from South Dakota's economic base. Furthermore the federalization of the power resource results in the export of 70% of the power generated in this state to other states. In a 1987 study prepared for the state by Dr. Jay Leitch, it was estimated that the decrease in economic activity due to the inundated lands costs South Dakota $27.1 million annually in lost personal income, $27.5 million annually in lost retail trade, $79.3 million annually in lost total business activity and $1.1 million annually in lost sales and use tax collections. In the 30 years since the lands were inundated, South Dakota has experienced cumulative foregone business activity amounting to an estimated $1.1 billion.

AUTHORITY FINDINGS
PAYMENT-IN-LIEU-OF-TAXES

- * The Authority finds that PILT is an accepted and logical means for one governmental entity to compensate another governmental entity for costs incurred or services rendered.
- * The Authority finds that precedents for PILT exist in other states and that such a system could be implemented in South Dakota.
- * The Authority finds that PILT would develop a revenue stream for South Dakota.
- * The Authority finds that PILT, if considered a cost of the Pick-Sloan Project, would increase the cost of power to preference users.

AUTHORITY FINDINGS
PAYMENT-IN-LIEU-OF-TAXES (Cont.)

- * The Authority finds that PILT made directly from the U.S. Treasury to the State of South Dakota but not to be allocated as a cost in a Power Repayment Study would not impact cost of power to preference users.

- * The Authority finds that precedents for PILT have been established for federal hydroelectric facilities.

- * The Authority finds that PILT would be feasible if the monies would come as a direct allocation from the U.S. Treasury.

- * The Authority finds that South Dakota has lost an estimated $1.1 billion in cumulative business activity and some compensation should be made to the state.

- * The Authority finds that PILT could create an annual revenue stream for South Dakota with proper federal legislation. According to RMI, if a $1.1 million option were implementated through the power system, it could increase WAPA power rates by $.00011 per kilowatt-hour and thus raise an average power bill $1.10 annually (83% of which would come from preference consumers in other states).

.......precedents for Payment-In-Lieu-Of-Taxes have been established for federal hydroelectric facilities... (and) could create an annual revenue stream for South Dakota with proper federal legislation.......

AUTHORITY RECOMMENDATIONS
PAYMENT-IN-LIEU-OF-TAXES

- * The Authority recommends that the state pursue federal legislation authorizing a payment directly from the U.S. Treasury to the State of South Dakota as PILT to compensate South Dakota for losses suffered from the construction of the dams on the Missouri River.

Refinancing High Interest Investments

Certain investments on the Pick-Sloan books are at interest rates which may be higher than the rates at which South Dakota could issue debt to refinance such investments. South Dakota could issue debt to repay the federal government for project investments and then be repaid on the same schedule as that currently in effect. The difference between the cost of issuance, principal, and interest to South Dakota and that accrued by the federal government could be utilized as a revenue stream for South Dakota.

In order to issue tax-exempt debt for this purpose, the state would have to show: 1) there is no federal guarantee on the debt; and 2) the investment associated with the debt is applied to a governmental purpose. Another alternative might be to include a contractual provision stating that the sole security for the debt is the revenue of the system and that the faith and credit of the federal government is not applied as security.

The marketability of the debt might pose certain restrictions as well. Under the federal repayment system, debt is repaid as funds are available. Because of this, the call provisions on debt issued by the state would need to be flexible.

The availability of tax-exempt debt for the purpose of refinancing federal debt is also questionable. Although there are several precedents for the participation of non-federal parties in the financing of federal project improvements, no refinancing precedent such as the one discussed here exists. The advice of bond counsel, therefore, would be necessary to draw conclusions about the tax status of such debt.

AUTHORITY FINDING
REFINANCING HIGH INTEREST INVESTMENTS

* The Authority finds that the refinancing of high interest investments is probably not possible because there would be no collateral for the bonds. Further, the Authority finds that its consultant, RMI, did not advise pursuing this concept because no precedent exists for this proposal and because it would likely result in legal entanglements.

AUTHORITY RECOMMENDATION
REFINANCING HIGH INTEREST INVESTMENTS

* The Authority recommends that the state not pursue the refinancing of high-cost federal debt on Pick-Sloan investments as an attempt to receive an annual revenue stream due to the relatively small amounts of revenue that could be generated and because of the legal entanglements which could result.

Missouri River Cost Recovery Authority Report

Chapter Six - New Hydropower Development

Hydropower Upgrading

The Corps of Engineers has identified modifications that could be implemented on the Oahe and Ft. Randall generating units to increase capacity and power generation. Recently, generator rewinding projects have been completed on the Oahe and Gavins Point generating facilities to increase reliability and peak generating capacity. Prior to implementing these projects, reconnaissance reports were completed for each of the mainstem reservoirs. Within each of these reports, rehabilitation and upgrade projects are identified which vary from major to minor depending on the degree of work and cost involved. The major upgrade projects which include replacement of runner blades at Fort Randall and Oahe dams, are candidates for non-federal participation.

The Oahe Reconnaissance Report recommends that a major modification program be undertaken to increase dependable capacity by approximately 29 Mw, nonfirm capacity by 8.3 Mw, and energy production by 102,000 Mwh. The estimated cost for this program, adjusted for inflation to 1990, is $17.2 million. Based upon average energy production, 17 mills per kilowatt-hour would be necessary to cover the debt-service for this project.

The Fort Randall Reconnaissance Report (preliminary draft) recommends that the facilities' runner blades be replaced. This action would improve plant capability by 20 Mw, increase energy production by 81,000 Mwh and have an estimated cost of $8.8 million. Based on these estimates, an assessment of 11 mills per kilowatt-hour would be necessary to cover the project's debt-service.

Precedents exist to justify non-federal financing of federal facility upgrades and for the establishment of revenue streams from such undertakings. The upgrade of the Buffalo Bill Dam by the State of Wyoming, the Hoover Power Plant Act of 1984, and the financing of the Town Bluff Dam by the Sam Rayburn Municipal Power Agency provided precedents for: non-federal upgrading and financing proposals, the allocation of increased federal hydropower to a nonfederal entity, and the establishment of a financing source through incorporation of a recovery fee in federal project power rates.

.......Precedents exist to justify non-federal financing of federal facility upgrades and for the establishment of revenue streams from such undertakings.......

This region of the United States currently has an energy surplus. The Missouri Basin Systems Group has stated that if load growths are 2% greater than currently projected, the Eastern Division's surplus would be utilized by 1996. By the time upgrading projects could be completed, ready markets could exist for the increased capacity realized through upgrading.

Factors which should be considered regarding proposals to upgrade federal hydroelectric facilities include:

a) Continued climatic changes resulting in increased summer peak loads;
b) Worldwide increases in oil prices;
c) Legislation which impacts older coal-fired plants due to acid rain concerns; and,
d) Accelerated retirement of older plants.

AUTHORITY FINDINGS
HYDROPOWER UPGRADING

* The Authority finds that the State of Wyoming upgraded hydroelectric facilities on the Buffalo Bill Dam and the state is reimbursed for its investment by Pick-Sloan preference power customers. This project establishes a precedent for Missouri Basin states to participate in Pick-Sloan hydropower upgrading projects through the up-front financing of improvements in the hydropower system in return for a guarantee of revenues.

* The Authority finds that upgrading work, if accomplished, should be limited to the replacement of runner blades at the Ft. Randall and Oahe dams, that such upgrade work is technically feasible, that such work would increase the generating capacity of these dams, and that the financing of such projects is eligible for non-federal participation at a total cost of $26 million.

* The Authority finds that hydropower upgrading could create a revenue stream for South Dakota and retirement of debt and a $1.1 million financing fee generated from system-wide revenues in association with a state-financed hydropower upgrading program would require a rate contribution of .37 mills/kwh. By comparison, Buffalo Bill upgrading will require a system-wide contribution of .49 mills/kwh.

* The Authority finds that the increased energy output realized through hydropower upgrading could benefit power consumers but the upgrading of federal facilities in South Dakota is dependent on the need and pricing of the power produced.

* The Authority finds that South Dakota could provide financing for upgrading work at the Fort Randall and Oahe dams provided the necessary state and federal approvals were obtained.

AUTHORITY FINDINGS
HYDROPOWER UPGRADING (Cont.)

- The Authority finds that repayment of principal and interest at a rate of 10.0% would result in costs above WAPA's current rate (17 mills and 11 mills vs. WAPA's 7.5 mills) even before any revenue stream could be realized by the State of South Dakota.

- The Authority finds that if WAPA were to market the power derived from facilities constructed with funds provided by the State of South Dakota, a state preference situation would be created.

- The Authority finds that the State of Wyoming, the Bureau of Reclamation, and Western Area Power Administration jointly participated in hydropower upgrades on the Buffalo Bill Dam and as a part of that cooperative venture, the State of Wyoming will receive payments from Pick-Sloan revenues of $2.2 million per year for 35 years making for a total of $77 million.

- The Authority finds that the cost of upgrading the hydroelectric features of the Buffalo Bill Dam will cost approximately $45 million with anticipated generation of 71,800 mwh annually (WAPA and Bureau of Reclamation figures).

- The Authority finds that repayment of the Buffalo Bill Dam hydroelectric facility features over 50 years at 12.375% interest will cost $5,585,400 which translates into a cost of 78 mills/kwh.

- The Authority finds that South Dakota power consumers will pay approximately $840,000 annually (the difference between 78 mills and 8 mills/kwh) for the hydroelectric upgrading features of the Buffalo Bill dam or approximately $4.95 per 10,000 kwh of WAPA consumption.

.......Hydropower upgrading could create a revenue stream for South Dakota and.......the increased energy output realized through hydropower upgrading could benefit power consumers.........

.......South Dakota power consumers will pay approximately $840,000 annually.......for the hydroelectric upgrading features of the Buffalo Bill Dam.......

AUTHORITY RECOMMENDATIONS
HYDROPOWER UPGRADING

* The Authority recommends no expenditure of South Dakota funds at this time for hydropower upgrading work at Missouri River dams because it would violate the conditions set forth in Section 7 of Senate Bill No. 138.

* The Authority recommends that the state, public power interests, Western Area Power Administration, and the Corps of Engineers continue to investigate the advisability of pursuing hydropower upgrading as a means of providing benefits to the state.

Gregory County Pumped Storage Hydroelectric Project

The Gregory County Pumped Storage project is a multipurpose peaking capacity power plant which has potential for the development of irrigation facilities as well as for domestic and industrial water supplies. As originally proposed by the Corps of Engineers, the hydroelectric portion of the project called for the construction of a 2360 Mw pumped storage facility adjacent to the Missouri River. This element was to be built in two stages and have an estimated cost of $1.5 billion. Subsequent analysis by the Corps of Engineers has determined that the project could be "down-sized" and constructed in as many as four stages to better accommodate regional power needs.

The South Dakota Conservancy District has been issued a preliminary Federal Energy Regulatory Commission (FERC) permit for this project which reserves priority for the project while requisite feasibility and environmental investigations are conducted. South Dakota has three years to fulfill permit requirements. Satisfactory completion of these requirements will allow the state to begin processing an application license.

The Midcontinent Area Power Pool (MAPP) region, of which South Dakota is a part, does not presently have a need for additional capacity. By the time this project could be licensed and constructed, however, it is likely that regional load growths will create a need for additional capacity. Also, the construction of regional power interties would allow the transfer of peak demand energy from this facility to regions which are likely to have generating capacity shortfalls.

AUTHORITY FINDINGS
GREGORY COUNTY

- The Authority finds that a multipurpose pumped storage facility could meet future regional needs in such areas as energy capacity, irrigation, and domestic water supplies.
- The Authority finds that the Federal Energy Regulatory Commission has issued a preliminary permit for the Gregory County Pumped Storage Hydroelectric Project which provides the state with an opportunity to further explore the development of this project.
- The Authority finds that load growths are extremely difficult to predict but current projections indicate a potential need for additional peaking capacity in the 1990's and it could be supplied from the Gregory County Pumped Storage facility.
- The Authority finds that the State of South Dakota could finance this project with the required state and federal approvals but this project does not seem to be feasible until additional power is required due to high generation and debt retirement costs for hydropower generated from this facility. Therefore, no revenue stream could be developed until that time.
- The Authority finds that regional power interties would allow the transfer of energy from Gregory County Pumped Storage to regions having long-term requirements.

.......The South Dakota Conservancy District has been issued a preliminary Federal Energy Regulatory Commission permit for this project.......

AUTHORITY RECOMMENDATION
GREGORY COUNTY

- The Authority can make no recommendation concerning Gregory County Pumped Storage Hydroelectric Project because the Authority did not conduct an in-depth study to determine the magnitudes of cash benefits, if any, or to determine pros and cons of such a project.

South Dakota Power Marketing Authority

Under the concept of ultimate development, the Bureau of Reclamation determined that approximately 168 Mw of Pick-Sloan hydropower were necessary to meet the pumping requirements for 14 irrigation projects in South Dakota. These economic development projects were to be the primary compensation to the state in exchange for the costs and sacrifices which it incurred from creation of the mainstem reservoirs. Figure 7-1 identifies these irrigation projects and the amount of hydropower which was identified for each project.

To date, approximately 13.6 Mw or 8% of the amount of hydropower for South Dakota irrigation projects has been allocated

PICK-SLOAN ULTIMATE DEVELOPMENT IRRIGATION PROJECTS AND POWER ALLOCATIONS IN SOUTH DAKOTA AS OF 1958

Project	Demand (KW)
Belle Fourche	290
Oahe	157,236
Crazy Horse	32
Culdesac	1,848
Fort Thompson	1,841
Grass Rope	1,366
Greenwood	472
Iron Nation	503
Joe Creek	1,649
La Roche	551
Rosseau	566
Tower	100
Yankton	58
Pine Ridge	1,695
Total	168,207

SOURCE: Unites States Bureau of Reclamation

Figure 7.1

to in-state water projects. The balance (approximately 154.4 Mw) is being marketed as firm capacity to preference customers in the Pick-Sloan service area. Based on WAPA's current allocation percentages, South Dakota consumers receive approximately 17% (26.25 Mw) of this capacity while preference customers in other states consume 83% of this capacity (128.15 MW). Figure 7-2 summarizes the current allocation of South Dakota's irrigation hydropower.

Table 7-2. ALLOCATION OF SOUTH DAKOTA IRRIGATION PUMPING POWER

Allocated Use	Demand (kw)
Existing/Planned Projects	
Existing	4,700
Hill Top/Gray Goose	2,800
Mni Wiconi	6,100
Subtotal	13,600
Allocations to States**	
South Dakota	26,250
Other States	128,150
Subtotal	154,400
Total	*168,000

*Rounded to nearest hundred.

**Allocated to preference customers until contractually withdrawn.

SOURCE: United States Bureau of Reclamation

Figure 7.2

The states of Arizona and Nevada presently have state power agencies that remarket federal hydropower. The Arizona Power Authority (APA) and the Colorado River Commission (CRC) of Nevada are responsible for distributing federally generated hydropower to consumers within the states of Arizona and Nevada, respectively. In turn, each agency realizes revenue to fund state-sponsored activities.

Based on the precedents established in Arizona and Nevada, RMI determined that South Dakota could establish a state power authority to market the state's unobligated irrigation pumping power through WAPA. This power could be marketed in one of two ways. In the first option, South Dakota pumping power would be sold to existing customers at current rates. The net difference between the Pick-Sloan irrigation pumping rate of 2.5 mills/kwh (the state's power cost) and the current firm commercial rate of 7.5 mills/kwh would generate revenue for South Dakota. Under this scenario, South Dakota could realize approximately $1.5 million annually for a revenue stream. Additionally, since WAPA would lose revenue in the amount of 5 mills/kwh, RMI has projected that this proposal would increase WAPA's Pick-Sloan composite firm rate by about 0.15 mills/kwh. The second option is for the state to obtain South Dakota's allocation of irrigation pumping power and market it to preference customers at an alternative rate. The alternative rate would be based upon cost of service which RMI has proposed to be approximately 15 mills. This scenario could provide a revenue stream of approximately $4 million annually.

Under both options, unobligated irrigation pumping power would be marketed to existing customers until such time that it is dedicated to in-state water projects. Requisite power would then be withdrawn from preference customers as needed. State revenue via the aforementioned methods would be generated until all power was assigned to specific projects. Impacts to WAPA's composite firm rate would be the same under both options.

AUTHORITY FINDINGS
SOUTH DAKOTA POWER MARKETING AUTHORITY

* The Authority finds that 76 percent of the Pick-Sloan irrigation pumping power originally identified for South Dakota irrigation projects is being utilized in other states and that South Dakota could realize an economic benefit from this power if it were utilized in the state.

* The Authority finds that the states of Arizona and Nevada have created power marketing authorities to market power from federal generating facilities and that a similar organization could be created in South Dakota.

* The Authority finds that Article XIII, Section 12 of the South Dakota Constitution creates the authority for the state to acquire, own, control, develop, operate and finance hydroelectric facilities.

AUTHORITY FINDINGS
SOUTH DAKOTA POWER MARKETING AUTHORITY (Cont.)

- The Authority finds that the irrigation pumping power which was reserved for South Dakota irrigation projects could be used for other water development uses in South Dakota.

- The Authority finds that allocating the Pick-Sloan hydropower that was identified for South Dakota irrigation projects to a state power marketing authority could create a revenue stream and that 83 percent of the revenue generated from this means would be derived from preference customers in other states.

- The Authority finds that reallocation of the hydropower which was reserved for South Dakota irrigation projects could result in other states taking similar actions but that reallocation would result in a net gain of 90 Mw for South Dakota.

- The Authority finds that a $1.5 million revenue stream for South Dakota, generated from system-wide revenues, could be obtained from a rate value of .15 mills/kWh which may or may not need to be assessed as a rate increase. Further, the Authority finds that the rate of .15 mills/kwh is significantly less than the 1.60 mills/kwh which South Dakota preference power consumers are scheduled to pay for irrigation aid to the State of Nebraska and the .49 mills/kwh which state power consumers are paying the Buffalo Bill dam upgrading project in Wyoming.

- The Authority finds that a South Dakota Power Marketing Authority could be created by the South Dakota Legislature, that allocation of the state's unobligated irrigation pumping power to such an authority would require passage of federal legislation, and that such an action would likely increase federal power costs to preference customers.

- The Authority finds that the irrigation pumping power originally set aside for South Dakota in the Pick-Sloan program (approximately 154 Mw at present) is contracted, with withdrawal provisions, to preference customers until required for irrigation purposes.

AUTHORITY RECOMMENDATIONS
SOUTH DAKOTA POWER MARKETING AUTHORITY

- The Authority can not recommend creation of a South Dakota Power Marketing Authority because to do so would violate the conditions set forth in Section 7 of Senate Bill No. 138.
- The Authority recommends that the state, public power interests, and various involved agencies of the federal government negotiate and agree on avenues by which an equitable share of benefits can be provided for South Dakota.

Riverside Irrigation Integration

Riverside Irrigation Integration is a proposal to realize a portion of the primary benefit which was promised to South Dakota in the 1944 Flood Control Act i.e., low-cost hydropower to irrigate 972,000 acres and repayment based on individual irrigator's ability to pay. Approximately 168 megawatts of Pick-Sloan pumping hydropower has been identified for South Dakota irrigation projects. To date, South Dakota has realized 24,100 acres of irrigation development or approximately 2.5% of the total identified for the state in the 1944 Flood Control Act. This proposal seeks to integrate five existing irrigation projects into the Pick-Sloan program. These irrigation projects currently serve 22,100 acres and represent approximately one-third of the total number of riverside acres currently being irrigated.

Specifically, Riverside Irrigation Integration calls for federal Congressional authorization for physical and financial integration of the West Potter, New Evarts, Northwest, West Brule, and Central Charles Mix irrigation districts into the Pick-Sloan program. These projects draw water directly from the Missouri River and serve many of the farm families who lost land to the Missouri River reservoirs. It is estimated that from 5.1 to 7.9 megawatts of Pick-Sloan power would be required to meet the lift requirements for these projects.

Upon receipt of federal authorization, the Pick-Sloan pumping hydropower which is currently contracted to preference customers, could be withdrawn and allocated to South Dakota water development projects.

AUTHORITY FINDINGS
RIVERSIDE IRRIGATION INTEGRATION

- The Authority finds that Riverside Irrigation Integration is a contemporary method which may realize some of the intended Pick-Sloan benefits.
- The Authority finds that Riverside Irrigation integration should have no substantial effect on rural electric cooperatives which supply power to Riverside Irrigators as the assessment of wheeling charges should keep distribution suppliers whole.

AUTHORITY FINDINGS
RIVERSIDE IRRIGATION INTEGRATION (Cont.)

* The Authority finds that Riverside Irrigation integration presently represents approximately one-third of the total riverside acres presently under irrigation.

* The Authority finds that Riverside Irrigation integration would utilize approximately 10 Mw or less than 6 percent of the 168 Mw identified for South Dakota irrigation projects.

* The Authority finds that under the original Pick-Sloan program, power users were to share the hydroelectric facilities with irrigation users and that power users were to repay the capital construction cost of the irrigation facilities above the irrigator's ability to repay (traditionally 85% of construction costs).

* The Authority finds that power purchases by rural electric power cooperatives from Basin Electric would be reduced.

* The Authority finds that use of Missouri River power by riverside irrigators would not produce a stream of revenue for the State of South Dakota. It would, however, benefit a few South Dakota citizens by virtue of lower power costs. This action could raise WAPA power rates by $.00001 per kilowatt-hour.

* The Authority finds that the withdrawal of power from preference customers would adversely impact the rates of a large number of power consumers without the benefit of increased production.

* The Authority finds that some landowners who relinquished their land to the federal government for the construction of the mainstem dams were assured when they were relocated that they would receive preference pumping power for their lift water needs.

* The Authority finds that Riverside Irrigation Integration should apply only to federally authorized irrigation projects using water from the Pick-Sloan system which are subject to Reclamation law and which have organized as an entity which can contract with the federal government.

AUTHORITY RECOMMENDATION
RIVERSIDE IRRIGATION INTEGRATION

* The Authority cannot recommend Riverside Irrigation Integration because to do so would violate the conditions set forth in Section 7 of Senate Bill No. 138.

Rural Water Systems

Section 1b of the 1944 Flood Control Act identifies industrial and domestic water supplies as two of the fundamental goals of the Pick-Sloan program. These uses were explicitly discussed in the O'Mahoney-Milliken amendment which states that these and other consumptive beneficial water uses have precedence over downstream uses. Furthermore, Senate Document 191 states that hydropower over and above that which is needed for irrigation pumping shall be available for "domestic, municipal, commercial, and industrial uses".

The Garrison Diversion Unit Reformulation Act of 1986 underscores the principles contained in the O'Mahoney-Milliken amendment. This Act established the Municipal, Rural & Industrial Water Supply Program which provided the state of North Dakota with $200 million for the development of domestic water supply systems. Locally identified projects such as the Southwest Pipeline project are eligible to receive funding on a 75% federal, 25% non-federal basis. Such projects are also eligible to receive Pick-Sloan hydropower at the preference power rate.

Since 1944, no South Dakota rural water systems have been integrated into the Pick-Sloan program. The recently authorized Mni Wiconi rural water system, however, will utilize Pick-Sloan hydropower when completed. This system could be fully operational by 1995.

It is estimated that the 20 existing South Dakota rural water systems would utilize approximately 10 Mw of capacity to satisfy all energy requirements. Other planned systems such as the Mid-Dakota Rural Water System will require additional pumping power. In total, existing and future rural water systems are estimated to require less than ten percent of the energy originally identified to meet irrigation pumping requirements.

AUTHORITY FINDINGS
RURAL WATER SYSTEMS

The Authority finds that domestic water supply systems are beneficial uses identified in the 1944 Flood Control Act and that rural water systems are recognized as contemporary state needs.

AUTHORITY FINDINGS
RURAL WATER SYSTEMS

- The Authority finds that the Garrison Diversion Unit Reformulation Act appropriated $200 million to the State of North Dakota for the construction of domestic water supply systems and authorized these systems to use preference pumping power.

- The Authority finds that precedent also exists to provide a reallocation of pumping power at the preference power rate to rural water systems.

- The Authority finds that the state has had success in financing rural water systems on its own without having such systems integrated into the Pick-Sloan program.

- The Authority finds that the allocation of Pick-Sloan power to rural water systems would require federal legislation and would not provide a revenue stream for South Dakota.

- The Authority finds that use of WAPA power for rural water systems could increase power rates to preference customers.

- The Authority finds that a need for rural water systems in South Dakota has been established as a means to improve the quality of life for many rural and urban citizens of South Dakota and as an aid to enhance the financial condition of livestock producers in South Dakota.

- The Authority finds that allocating pumping power to rural water systems would not create a revenue stream but could lower water and pumping rates. This action could raise WAPA power rates by $.00001 per kilowatt-hour.

AUTHORITY RECOMMENDATION
RURAL WATER SYSTEMS

- The Authority can not recommend use of Pick-Sloan pumping power for Rural Water Systems because to do so would violate the conditions set forth in Section 7 of Senate Bill No. 138.

Missouri River Cost Recovery Authority Report

Chapter Eight - Water Marketing

Water Marketing

Background.-- Many waters within the boundaries of the United States are either over-appropriated or soon will be. The future of many cities, therefore, might be determined by their ability to purchase water rights.

To ascertain South Dakota's potential water marketing opportunities, the Authority contracted with the consulting engineering firm of Shupe & Associates, Santa Fe, New Mexico, which specializes in water resource policy and management. Specifically, Shupe & Associates was asked to: help the Authority develop a better understanding of water marketing methods; identify areas needing additional water supplies; and identify steps which South Dakota should take to market water.

Mr. Steve Shupe of Shupe & Associates indicated that South Dakota has no immediate opportunities to market water. He stated, however, that South Dakota might have an excellent opportunity to market water in 20 to 30 years since the Missouri River is one of the few rivers in the western United States that is not currently over-appropriated. Future marketing opportunities for the state might particularly come from the west and southwest regions of the country where populations and corresponding water demands continue to rise.

Mr. Shupe also stated that there are three basic types of water buyers: off-stream users (cities, developers, industries); downstream users (recreation, navigation, etc.); and investors. In the southwestern region of the country where water marketing is primarily occurring, costs for water rights range from $160 per acre-foot to $6,000 per acre-foot.

AUTHORITY FINDINGS
WATER MARKETING

* The Authority finds that the state may have long-term potential to market water because of the availability of Missouri River water resources and although no specific customers have been identified at present, future revenue could be generated from this source.

* The Authority finds that water marketing is a potential means of attaining a revenue stream for South Dakota. In order to optimize the state's water marketing potential, however, it will be necessary to establish relationships with other states and Indian tribes in the region.

* The Authority finds that water rights laws within the State of South Dakota should be reviewed to ensure that they reserve sufficient quantities of water for the state's future population and economic needs.

* The Authority finds that Missouri River water is one of the state's greatest assets and that future water development in the state will depend on this resource. Further, the Authority finds that steps must be taken to preserve this resource for the citizens of South Dakota.

AUTHORITY RECOMMENDATION
WATER MARKETING

* The Authority recommends that the State of South Dakota develop and pursue a plan to market water from the Missouri River.

GLOSSARY

Allocated Costs - A percentage figure of the total Pick-Sloan program development costs assigned to a specific function such as flood control, navigation, irrigation, etc.

BWNR - Board of Water and Natural Resources

COE - Corps of Engineers

CROD - contract rate of delivery

Composite Firm Rate - That rate established by the Western Area Power Administration which meets projected revenue requirements for the agency's budget period.

Five-year Window - The five-year budget period over which annual operating costs including figures for new equipment, operation and maintenance costs, and extraordinary maintenance expenses are projected for the Western Area Power Administration.

FERC - Federal Energy Regulatory Commission

Flexibility - The ability of the Power Repayment Study to be adjusted for changes in assumptions without changing hydropower rates.

GDU - Garrison Diversion Unit

GDURA - Garrison Diversion Unit Reformulation Act

Irrigation Aid - Revenue derived from the sale of federal hydropower which is assigned to repay that portion of irrigation component costs which are determined to be beyond the ability of individual irrigators to pay

kw - Kilowatt, one thousand watts.

MAPP - Midcontinent Area Power Pool

MRCRA - Missouri River Cost Recovery Authority

Mw - Megawatt, one million watts.

Mwh - Megawatthour, one thousand kilowatt hours.

Mill - One-tenth of one cent.

Nonreimbursable Costs - Pick-Sloan allocated costs which do not have to be repaid.

OM&R - Operation, maintenance, and replacement expenses.

PILT - Payments-in-lieu-of-taxes

PRS - Ppower repayment study

Pinch-Point - The critical time-frame in the power repayment study at which expenses exceed revenues.

Preference Power Customers - Consumers of federal hydroelectric power which receive power "at-cost" through annual CROD's.

Preference Power Rate - The wholesale firm rate as established by WAPA.

SB 138 - Senate Bill 138

REC - Rural Electric Cooperative

RMI - Resource Management International, Inc.

Reimbursable Costs - Pick-Sloan allocated costs which must be repaid to the federal government.

Revenue Stream - A source(s) of revenue which provides funds on an annual or long-term basis.

Suballocated Costs - A percentage figure of Pick-Sloan allocated costs which have been reassigned to another function.

Ultimate Development - A concept of the Pick-Sloan program which envisions all identified elements of the 1944 Flood Control Act being constructed over time.

USBR - U.S. Bureau of Recl;amation

WAPA - Western Area Power Administration

Watt - A unit of power equal to 1/746 horsepower.

Watt-hour - A unit of energy equivalent to the power of one watt operating for one hour.

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CHAPTER 46A-15

MISSOURI RIVER DEVELOPMENT

Section
46A-15-3. Repealed.
46A-15-5. Settlement of state claim relating to Pick-Sloan Missouri basin program authorized — Damages and obligations enumerated.
46A-15-6. Settlement framework — Short-term objectives.
46A-15-7. Long-term objectives.
46A-15-8. Authorization of additional future projects not precluded.
46A-15-9. Missouri river cost recovery program established as part of settlement — Use of revenue.
46A-15-10. Legislative finding as to Missouri river cost recovery program — Authorized as preferred, priority state objective.
46A-15-11. Missouri river cost recovery authority established — Recommendation of options by authority — Limits on recommended options.
46A-15-12. Composition of authority — Chairman — Submission of recommendations — Dissolution.
46A-15-13. Expenses of members — Staff services — Payment of expenses incurred.
46A-15-14. Governor authorized to negotiate, make agreements, with federal government.

46A-15-3. James-Missouri river commission — Creation — Composition — Duties. Repealed by SL 1988, ch. 368.

46A-15-5. Settlement of state claim relating to Pick-Sloan Missouri basin program authorized — Damages and obligations enumerated. The state shall proceed as quickly as possible to enact and implement at the state and federal levels a settlement, pursuant to §§ 46A-15-5 to 46A-15-14, inclusive, of South Dakota's claims resulting from damages and unfulfilled federal obligations to South Dakota relating to the Pick-Sloan Missouri basin program created by the Congress of the United States in the 1944 Flood Control Act. The damages and obligations include, but are not limited to, the loss of nearly five hundred thirty thousand acres of land inundated in South Dakota by four Pick-Sloan dams constructed in South Dakota, failure of the federal government to honor its commitment to develop nine hundred seventy-two thousand acres of Pick-Sloan irrigation in South Dakota, a grossly inequitable distribution of Pick-Sloan benefits and costs among the states of the Missouri basin, significant environmental and bank erosion damages caused by the construction and operation of the Pick-Sloan dams, the loss to South Dakota's economy of more than one billion one hundred million dollars in foregone economic activity because of the removal from production of inundated lands, and the loss of future opportunity for development by the state of the resources of the Missouri river.

Source: SL 1988, ch 369, § 1.

46A-15-6. Settlement framework — Short-term objectives. South Dakota's Pick-Sloan settlement framework shall consist of short-term objectives enumerated in this section, long-term objectives pursuant to § 46A-15-7, and the Missouri river cost recovery program pursuant to § 46A-15-9. The short-term objectives shall include, at federal expense, the projects and total project costs enumerated in this section, subject to nonfederal cost-sharing requirements established by Congress and agreed to by the Governor or his designated agents and the appropriate local project sponsors. The short-term objectives and the estimated 1986 costs, subject to adjustments as needed, to achieve such objectives are as follows:

- (1) Completion of the following projects already under construction:
  - (a) The Belle Fourche irrigation rehabilitation project at forty-two million two hundred thousand dollars remaining total cost;
  - (b) The WEB rural water development project at twenty-five million dollars remaining total cost;
- (2) Development of the following projects proposed for construction, for which planning has been completed:
  - (a) The Lake Andes-Wagner/Yankton Sioux (Marty II) irrigation project at one hundred sixty-five million dollars total cost;
  - (b) The Lyman Jones, West River and Oglala Sioux rural water systems at one hundred million dollars total cost;
- (3) Development of the following projects proposed for construction for which further planning is required:
  - (a) Multipurpose water supply and irrigation features of the Gregory county hydroelectric pumped storage facility at one hundred million dollars total cost;
  - (b) James river flood control at twenty million dollars total cost;
  - (c) The Mid-Dakota rural water system at one hundred million dollars total cost;
  - (d) Missouri river fish and wildlife mitigation at thirty-five million dollars total cost;
  - (e) Missouri river streambank erosion control at seventy-five million dollars total cost;
  - (f) Integration into the Pick-Sloan program for Missouri river riverside irrigation projects at five million dollars for federal study purposes, subject to recommendation by the Missouri river cost recovery authority; and
  - (g) Rural and municipal water systems at one hundred million dollars total cost.

Source: SL 1988, ch 369, § 2

46A-15-7. Long-term objectives. The long-term objectives of the Pick-loan settlement shall include the future development of irrigation and hyroelectric power projects when conditions are appropriate for such developnent. Any final settlement of South Dakota's Pick-Sloan claims shall fulfill he long-term objectives as recommended by the board of water and natural esources in its report to the Governor entitled "South Dakota Missouri river ick-Sloan water initiative", December, 1987.

Source: SL 1988, ch 369, § 3.

46A-15-8. Authorization of additional future projects not preclude Nothing in §§ 46A-15-5 to 46A-15-14, inclusive, is intended, nor may be co strued, to preclude the state, any Indian tribes or any other eligible enti from seeking Congressional authorization and appropriation to plan, desi and construct additional projects in the future. Nothing in §§ 46A-15-5 46A-15-14, inclusive, prevents the authorization of other projects as units the Pick-Sloan Missouri basin program.

Source: SL 1988, ch 369, § 4

46A-15-9. Missouri river cost recovery program established as pa of settlement — Use of revenue. There is hereby established as a part South Dakota's Pick-Sloan settlement the Missouri river cost recovery pr gram to provide revenues to the state using the resources of the Pick-Slo system. Such revenues shall be deposited in the water facilities constructi fund established pursuant to § 46A-1-60 and shall be used to meet wat project cost-sharing requirements and for contemporary and future state a local water projects and resource management activities in South Dako

Source: SL 1988, ch 369, § 5

46A-15-10. Legislative finding as to Missouri river cost recov program — Authorized as preferred, priority state objective. The Leg lature finds that the following water resources project is necessary for t general welfare of the people of the state and authorizes the project pursua to § 46A-1-2 to be included in the state water resources management syst to serve as a preferred, priority objective of the state: Missouri river c recovery program.

Source: SL 1988, ch 369, § 6

46A-15-11. Missouri river cost recovery authority established Recommendation of options by authority — Limits on recommend options. There is hereby established the Missouri river cost recovery auth ity to evaluate, analyze and recommend options, including, but not limited state-financed upgrading of Pick-Sloan hydroelectric power generation fac ties, integration into the Pick-Sloan program of Missouri river riverside i gation projects and state-financed development of hydroelectric pumped st age facilities, such as the Gregory county hydroelectric pumped storage fa ity, under the Missouri river cost recovery program for providing revenues the state. However, any option recommended by the authority may not res in increased rates for consumers of existing federal hydropower, may affect the eligibility under federal law for existing hydropower, and may impair long-term wholesale power supply contracts.

Source: SL 1988, ch 369, § 7

46A-15-12. Composition of authority — Chairman — Submission of recommendations — Dissolution. The Missouri river cost recovery authority shall be composed of nine members: two at-large members appointed by the Governor, two members of the board of water and natural resources appointed by the Governor, two members of the Legislature appointed by the Governor, one member appointed by the South Dakota rural electric association, one member appointed by the South Dakota municipal electric association, and one member appointed by the investor owned electric companies of South Dakota. The Governor shall appoint the chairman of the authority from among its membership. The authority shall submit its recommendations to the Governor and the Legislature during the 1989 legislative session, at which time the authority shall be dissolved, unless otherwise directed by the Legislature.

Source: SL 1988, ch 369, § 8.

46A-15-13. Expenses of members — Staff services — Payment of expenses incurred. No member of the Missouri river cost recovery authority may receive any compensation for services rendered under §§ 46A-15-5 to 46A-15-14, inclusive. Members shall be reimbursed for per diem and necessary expenses incurred in connection with the duties and powers of the Missouri river cost recovery authority. All staff services required by the authority shall be provided by the department of water and natural resources. All expenses incurred in carrying out the work of the authority, including the per diem and travel expenses of the authority members and staff, shall be paid out of funds appropriated or otherwise made available to the authority.

Source: SL 1988, ch 369, § 9.

46A-15-14. Governor authorized to negotiate, make agreements, with federal government. The Governor may enter into negotiations and subsequent agreements with Congress and the federal government for resolution of South Dakota's Pick-Sloan entitlements.

Source: SL 1988, ch 369, § 10.

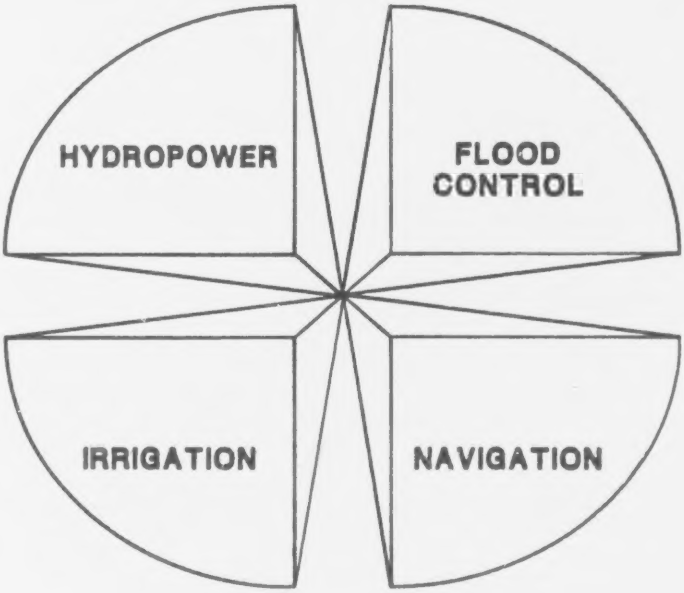
CHAPTER 46A-18

WATER PROJECT DISTRICTS

COMMISSION NOTE

Section 3 of SL 1988, ch 94, provided that the term "mill levy" wherever it is used means "tax levy" and that "tax levy" and derivatives thereof should be substituted for the term "mill levy" and its derivatives. Section 4 of SL 1988, ch 94, provided that the term "one mill" whenever it is used means "one dollar per thousand dollars taxable valuation" and that "one dollar per thousand dollars of taxable valuation" and derivatives thereof should be substituted for the term "one mill" and its derivatives. See §§ 10-6-1.1 and 10-6-1.2.

SOUTH DAKOTA MISSOURI RIVER PICK-SLOAN WATER INITIATIVE


HYDROPOWER
FLOOD CONTROL
IRRIGATION
NAVIGATION

A REPORT TO
GOVERNOR GEORGE S. MICKELSON

BY THE SOUTH DAKOTA
BOARD OF WATER & NATURAL RESOURCES

DECEMBER, 1987

Report of the Board of Water and Natural Resources
on
South Dakota Missouri River Pick-Sloan Water Initiative

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EXECUTIVE SUMMARY

In August of 1987, Governor George Mickelson announced a water initiative to: 1) resolve South Dakota's claims under the 1944 Missouri River Pick-Sloan program commensurate with South Dakota's sacrifices resulting from the construction of the Missouri River reservoir system, 2) meet the contemporary, realistic water development needs of South Dakota, and 3) move forward with a Pick-Sloan settlement on a coordinated, unified, consensus basis.

As the first step in the initiative process, Governor Mickelson directed the Board of Water and Natural Resources (BWNR) to conduct a series of eight public meetings on the proposed water initiative and to develop recommendations on the contents of the Pick-Sloan settlement package.

After extensive deliberation, the BWNR is proposing a Pick-Sloan settlement framework, consisting of a Missouri River Pick-Sloan projects component and a Missouri River Cost Recovery component. Within the Pick-Sloan projects component, the BWNR is recommending a set of short-term and long-term objectives. Fulfillment of these short-term and long-term objectives, along with the Cost Recovery component, will constitute a settlement of the federal government's obligations to South Dakota under the Pick-Sloan program.

The Pick-Sloan Program

The 1944 Pick-Sloan program resulted in the construction of six massive dams on the Missouri River, four of them in South Dakota, and the inundation of more than one-half million acres of South Dakota land. Under the Pick-Sloan agreement, the downstream states were to receive flood control and navigation, the upstream states were to receive large-scale irrigation development, and low-cost hydroelectric power produced at the dams would be distributed throughout the basin. Irrigation development was to be repaid using hydropower revenues and irrigator repayments, and irrigators were entitled to the use of low-cost hydropower for irrigation purposes. The 1944 Act creating the Pick-Sloan program involved substantial controversy, and it is doubtful whether the program would have been approved by Congress without the promises that were made to the upstream states.

After forty years, South Dakota has not received the benefits promised under Pick-Sloan, and it is clear that serious inequities exist in the distribution among the basin states of Pick-Sloan benefits and costs. The downstream states have received billions of dollars in flood control benefits, as well as construction of a navigation channel, both at federal expense. Moreover, nearly two-thirds of total Pick-Sloan hydropower is consumed in Iowa, Nebraska and Minnesota - states that lost virtually no land to the Missouri River reservoir system and have received almost all of the benefits promised to them. South Dakota, on the other hand, has received only a very small percentage of the nearly one million acres of irrigation that was promised. In addition, South Dakota receives only 17% of total Pick-Sloan hydropower, even though more than two-thirds of the Pick-Sloan power produced in South Dakota is sent to other states - mostly downstream states.

South Dakota's Pick-Sloan losses involve more than just unfulfilled promises. Not only has South Dakota not received its fair share of the benefits of Pick-Sloan, South Dakota has borne tremendous real costs in order to bring Pick-Sloan benefits to the downstream states. Economic studies have shown that even though individual landowners were paid for their lands, inundation and removal from production of South Dakota lands by the Pick-Sloan dams has cost the state $1.1 billion in foregone economic activity since the dams were closed in the 1950s and 1960s, as well as an additional $71 million in annual economic activity foregone because of the exporting of hydropower produced in South Dakota. At 1986 prices, the 972,000 acres of irrigation that were originally promised to South Dakota would cost $3.2 billion to construct; South Dakota has also lost the economic activity that would have been generated by those projects. Also, South Dakota has never been adequately compensated for its severed Missouri River resource. South Dakota's Pick-Sloan losses easily run into the billions of dollars.

Water development today operates under a much different set of rules than in the 1940s and 1950s when the downstream Pick-Sloan projects were constructed. Serious federal budget problems and cost-sharing requirements, as well as stringent environmental and fish and wildlife mitigation requirements, make project construction much more difficult today. While South Dakota is still interested in and entitled to Pick-Sloan water projects, the state finds itself in the position of having the rules changed in the middle of the game. South Dakota's water development needs have also changed over the last forty years, but the federal Pick-Sloan commitment to South Dakota and South Dakota's Pick-Sloan losses are as real today as they were forty years ago.

Recommendations

Based on public hearing input and historical and economic considerations, the BWNR recommends the following Pick-Sloan settlement framework:

Missouri River Pick-Sloan Projects Component (See Figure 1.)

1). Short-term project objectives that are ready for Congressional action:

Projects Under Construction $60.2 million
    Belle Fourche Irrigation Rehabilitation
    WEB Rural Water System

Projects Proposed for Construction $265 million
    (With Planning Completed)

    Lake Andes-Wagner/Yankton Sioux Irrigation Project
    Lyman Jones/West River/Oglala Sioux Rural Water System

Projects Proposed for Construction $435 million
    (With Further Planning Required)

    Gregory County Pumped Storage Multipurpose Water Supply and Irrigation Project
    James River Flood Control
    Mid-Dakota Rural Water System
    Missouri River Fish and Wildlife Mitigation
    Missouri River Streambank Erosion
    Missouri Riverside Irrigation Integration
    Rural and Municipal Water Supply Systems

2). Long-term objectives to be preserved and pursued at the appropriate time, including the CENDAK multipurpose project, the Gregory County Hydroelectric Pumped Storage project, and a Missouri River Pick-Sloan damage claim.

Missouri River Cost Recovery Component (See Figure 2.)

An important aspect of South Dakota's water initiative is the proposed Missouri River Cost Recovery program. The Cost Recovery program would provide an annual "revenue stream" to partially fund South Dakota water resources projects/programs and to reimburse the state for some of its Pick-Sloan costs and losses, provided that South Dakota public power consumers are not adversely affected. While several cost recovery alternatives, such as upgrading of Missouri River hydropower generating facilities and a payment in-lieu-of-taxes proposal, have been suggested by various groups, the BWNR has not made a final recommendation on any single alternative.

The BWNR recommends that the state pursue a Missouri River Cost Recovery program to secure a revenue stream for cost-sharing and future water projects. The BWNR further recommends that a Missouri River Cost Recovery Authority be established to investigate and design the cost recovery program. The Authority

SOUTH DAKOTA MISSOURI RIVER PICK-SLOAN WATER INITIATIVE

MISSOURI RIVER PICK-SLOAN PROJECTS COMPONENT

(SHORT TERM)

PROJECTS UNDER CONSTRUCTION

($60.2 MILLION)

BELLE FOURCHE IRRIGATION REHABILITATION
WEB RURAL WATER SYSTEM

PROJECTS PROPOSED FOR CONSTRUCTION (WITH PLANNING COMPLETED)

($265 MILLION)

LAKE ANDES-WAGNER/YANKTON SIOUX IRRIGATION
WEST RIVER/LYMAN-JONES/OGLALA SIOUX RWS

PROJECTS/PROGRAMS PROPOSED FOR CONSTRUCTION (WITH FURTHER PLANNING REQUIRED)

($435 MILLION)

GREGORY COUNTY PUMPED STORAGE MULTIPURPOSE WATER SUPPLY AND IRRIGATION PROJECT
JAMES RIVER FLOOD CONTROL
MID-DAKOTA RURAL WATER SYSTEM
MISSOURI RIVER FISH & WILDLIFE MITIGATION
MISSOURI RIVER IRRIGATION INTEGRATION
MISSOURI RIVER STREAMBANK EROSION
RURAL AND MUNICIPAL WATER SUPPLY SYSTEMS

FIGURE 1

SOUTH DAKOTA MISSOURI RIVER PICK-SLOAN WATER INITIATIVE

MISSOUR RIVER PICK-SLOAN PROJECTS COMPONENT

(LONG TERM)

CENDAK IRRIGATION PROJECT
GREGORY COUNTY PUMPED STORAGE HYDRO PROJECT
PICK-SLOAN DAMAGES CLAIM

MISSOURI RIVER COST RECOVERY COMPONENT

ESTABLISHMENT OF MISSOURI RIVER AUTHORITY
FUNDING FOR THE FOLLOWING PROJECTS:

- CLEAN LAKES
- GROUNDWATER PROTECTION
- FLOOD CONTROL
- RURAL WATER SYSTEM DEVELOPMENT\EXPANSION
- MUNICIPAL WATER AND WASTEWATER SYSTEMS
- DAM SAFETY
- HYDROLOGY STUDIES
- NONFEDERAL COST SHARING

FIGURE 2

would be composed of representatives of the Governor, the BWNR, the State Legislature and public and private electric power interests.

The BWNR stresses that these recommendations provide a framework for a Pick-Sloan settlement, but that an acceptable Pick-Sloan settlement for South Dakota must include satisfaction of both the short-term and long-term objectives and full realization of the equivalent of all of South Dakota's Pick-Sloan entitlements. The BWNR concurs with Governor Mickelson that this water initiative should be pursued on a consensus basis involving local interests, state interests, the South Dakota Congressional delegation, and the other Missouri Basin states.

CHAPTER I

Historical Background and Objectives

INTRODUCTION: When Governor Mickelson announced the water initiative, the Governor charged the Board of Water and Natural Resources (BWNR) with the responsibility to investigate potential alternatives and to propose a legislative package to serve as the basis for South Dakota's Pick-Sloan settlement framework. The Governor directed that the BWNR consider both traditional and nontraditional approaches and propose a solution that will address South Dakota's water resource needs. This report outlines the BWNR's recommendations.

A. THE PICK-SLOAN PLAN AND SOUTH DAKOTA WATER DEVELOPMENT

The Missouri River has been an important force in South Dakota's economic and political development since long before statehood. The 1944 Pick-Sloan program, the most ambitious attempt at Missouri River development, resulted in the construction of six massive dams on the upper Missouri, four of them in South Dakota, and the inundation of more than half a million acres of South Dakota land. In return for these costs, South Dakota was promised economic development in the form of nearly one million acres of irrigation, in addition to other benefits. As most South Dakotans know, however, these benefits have not been realized, and after forty years, the collection of these Pick-Sloan benefits, as an equitable share of the Missouri River resource, is long past due.

There were several pre-Pick-Sloan attempts at Missouri River development in South Dakota. The most significant occurred in 1918 when South Dakota voters approved a constitutional amendment allowing the state to own and operate hydroelectric power plants and to go into debt to finance such projects. The 1919 State Legislature commissioned a feasibility study, which identified eight potential dam sites, the most promising being a site near Mobridge and a site near the Nebraska border. The Mobridge site was selected and the issue put to a vote of the people in 1922. The issue became embroiled in questions of site location and power allocation, and the proposal was defeated. With the onset of the Depression and the Second World War, the proposal was not tried again.

An important point to remember is that South Dakota made a serious attempt to develop a Missouri River hydropower facility. The states were essentially free through this period to develop their natural resources, including river resources, as they saw fit. In effect, the Missouri River resource was federalized by the Pick-Sloan program, leaving little opportunity for nonfederal development of the river. One of the major assets that South Dakota relinquished in the 1940s in exchange for the promises of the federal Pick-Sloan program was the ability to develop the Missouri River on its own.

The economic and social devastation of the Great Depression, the dustbowl of the 1930s, and a series of disastrous floods in the early 1940s provided political impetus for action on somewhat conflicting plans by the Bureau of Reclamation and the Corps of Engineers for development of the Missouri River. As passed in the 1944 Flood Control Act, the Pick-Sloan program provided for construction of five new Missouri River dams (Gavins Point, Ft. Randall, Big Bend and Oahe in South Dakota and Garrison in North Dakota) and modification of the Ft. Peck dam in Montana. The dams would provide storage waters for flood control, irrigation, hydropower generation and navigation. The Pick-Sloan plan envisioned more than 100 potential reservoirs, millions of acres of irrigation, pumping systems, levee systems, a navigation channel and fish and wildlife uses. The flood control and navigation portions were to be paid at 100% federal expense, without reimbursement, while the irrigation and hydropower components were to be repaid by irrigators and hydropower consumers.

The O'Mahoney-Milliken Amendment, which was included in the legislation as a compromise to settle potential conflicts over the use of water under Pick-Sloan, specified that upstream beneficial consumptive uses, including irrigation, industrial, domestic and other uses, have explicit preference over downstream navigation uses of water. In order to obtain flood control, the downstream states were willing to place upstream consumptive uses ahead of navigation, and the upstream states agreed to provide 1.7 million acres of land inundated by the dams to gain irrigation and economic development. A nine-foot navigation channel from Sioux City to the mouth would be built at federal expense. Revenue from the sale of hydropower would help finance the dams, power facilities and irrigation projects; low-cost hydropower would be set aside for irrigators; and power would be available to consumers in both the upstream and downstream areas. These were the basic features of the Pick-Sloan plan.

B. THE PICK-SLOAN PLAN - RESULTS

In some respects, the Pick-Sloan plan has been extremely successful, providing billions of dollars in flood control benefits to the downstream states and low-cost hydroelectric power to preference power customers throughout the basin. For South Dakotans, however, much of the Pick-Sloan program has been a hollow promise, resulting in one-half million acres of lost land, more than a billion dollars in foregone economic activity as of 1985, and the development of only a miniscule percentage of the irrigation that was promised. The results of the Pick-Sloan program are as follows:

Flood Control. Flood control on the Missouri River has been highly successful. Financed at 100% nonreimbursed federal expense, the Pick-Sloan flood control program has prevented more than $2.3 billion in flood damages since 1957 ($4.6 billion in 1986 dollars); more than 90% of these damages would have occurred in the downstream states. Pick-Sloan has succeeded admirably in protecting the urban areas of the lower basin from serious flooding. (See Figure 3.)

Navigation. The direct benefits of the navigation channel were intended exclusively for the downstream states of Iowa, Nebraska, Kansas and Missouri. The navigation channel was completed with a nine-foot channel maintained from Sioux City to the mouth, again, at 100% nonreimbursed federal expense.

Irrigation. The original Pick-Sloan plan promised 5.3 million acres of irrigation development, including 4.0 million acres in the upper basin; 972,000 of these acres were to be developed in South Dakota. In 1986 dollars, adjusted for inflation, South Dakota's irrigation projects would have cost $3.2 billion. Irrigation was intended as the primary Pick-Sloan benefit for the upstream states in return for upstream lands flooded by the mainstem reservoirs. In 1944, after the Depression and drought of the 1930s, irrigation was seen as the most appropriate economic development vehicle for the upper basin, although other beneficial water uses in the upper basin, such as industrial and domestic water supplies, were discussed explicitly in the O'Mahoney-Milliken compromise.

Unlike flood control and navigation, irrigation projects were not to be financed on a nonreimbursable basis. Instead, irrigation project costs were to be repaid by individual irrigators up to their ability to pay, and the remaining irrigation project costs were to be repaid using revenues from hydropower generated at the mainstem dams. In addition, irrigators were entitled to the use of low-cost hydropower in their irrigation operations.

Irrigation development in the upper basin has been the most disappointing aspect of the Pick-Sloan program. By 1982, only 560,000 acres of the original 5.3 million acres had been developed, mostly in Nebraska and Kansas. After 40 years, South Dakota had received only 2.5% of the irrigation that was promised. A combination of technical problems, landowner concerns about canals and soil conditions, problems with the farm economy, and environmental concerns have stymied large-scale irrigation development in the Dakotas, resulting in a drastic reduction (by nearly 1 million acres) in the size of North

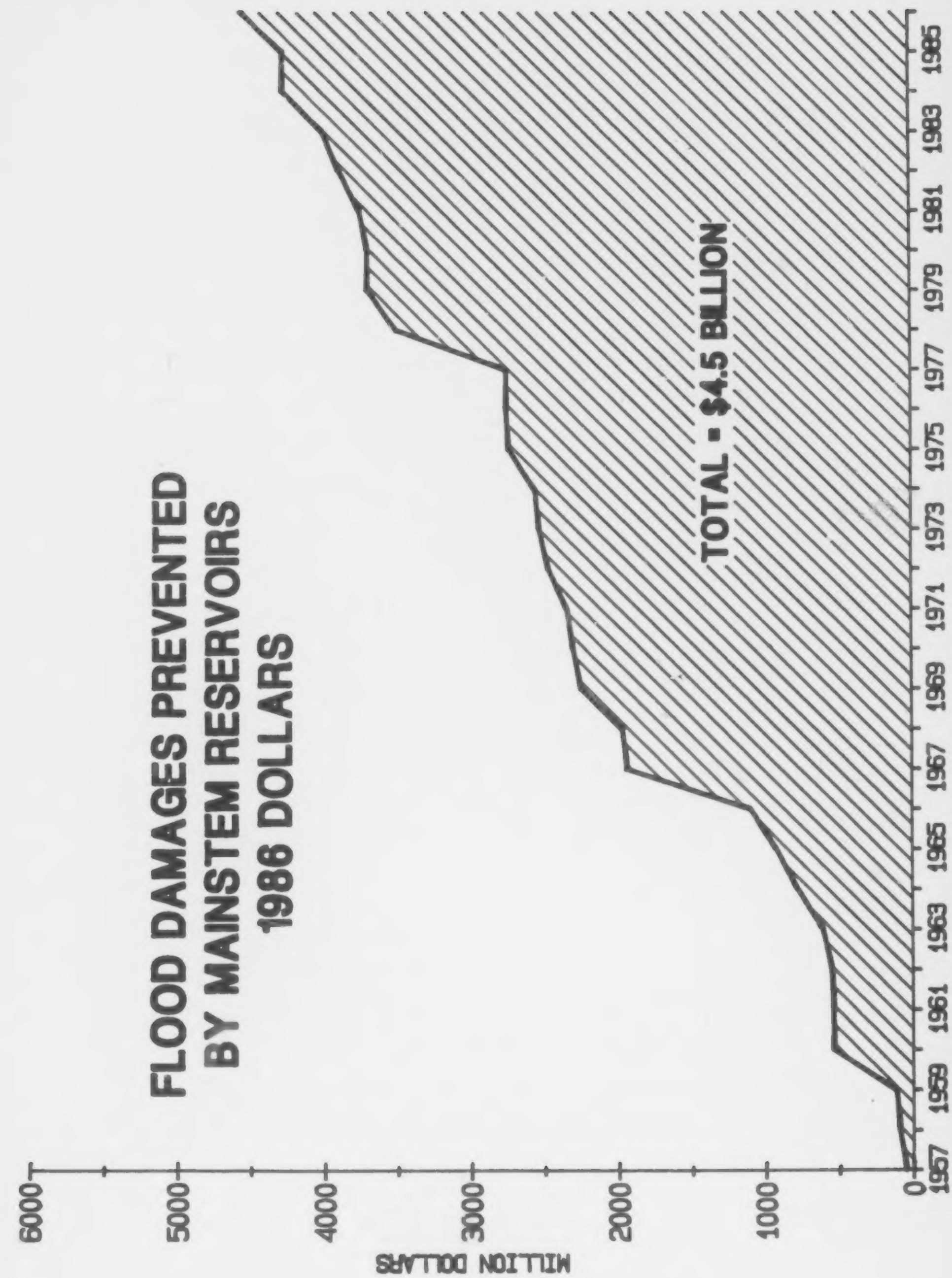

FLOOD DAMAGES PREVENTED
BY MAINSTEM RESERVOIRS
1986 DOLLARS
TOTAL = $4.5 BILLION
MILLION DOLLARS
6000
5000
4000
3000
2000
1000
0
1957
1959
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985

FIGURE 3

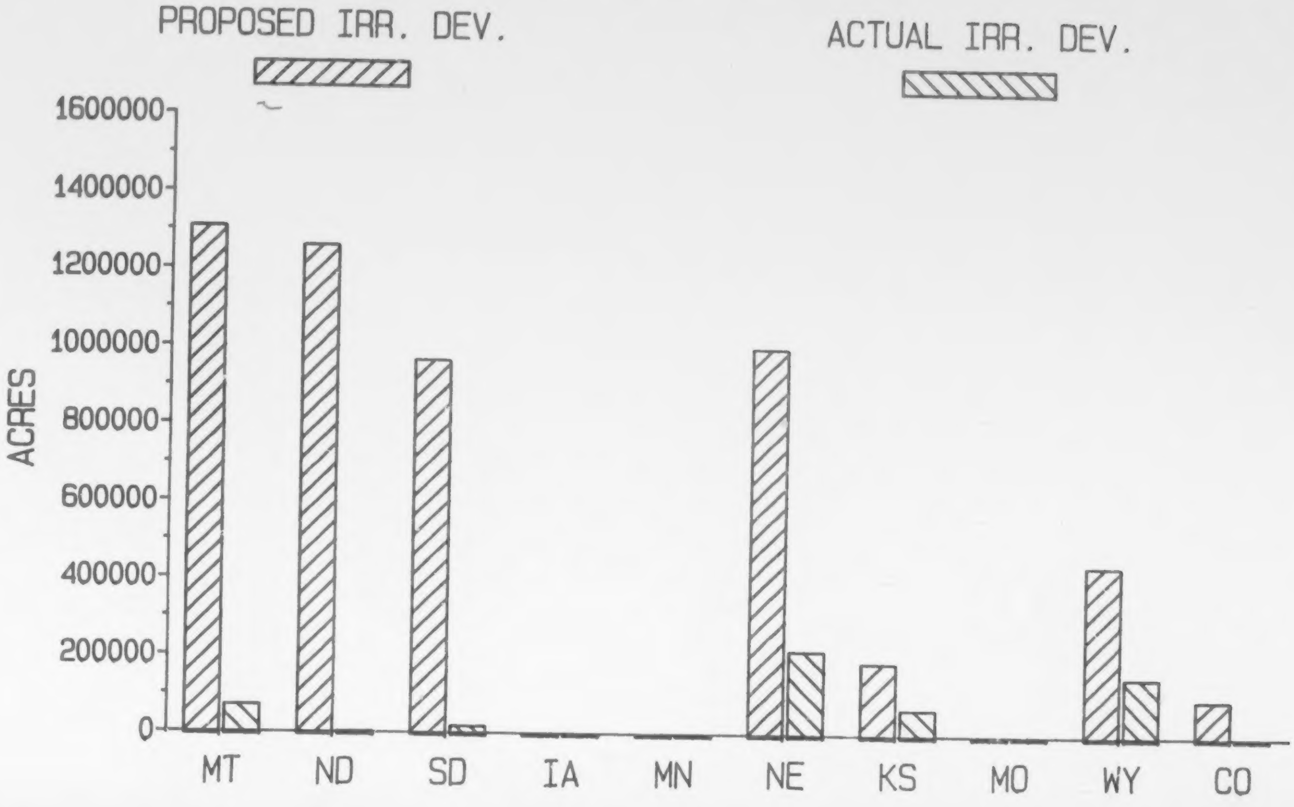
Dakota's Garrison project and the halting of South Dakota's Oahe project in 1979. In addition, local match requirements not envisioned in the Pick-Sloan plan have been created. Nevertheless, South Dakota has been attempting to secure alternative forms of water development that will meet the needs of the people of the state and realize a fair share of the benefits of the Pick-Sloan program. (See Figure 4.)

Hydropower. Under the Pick-Sloan plan, revenues from the sale of Missouri River hydroelectric power were intended to pay for construction of the dams and power facilities and for development of Pick-Sloan irrigation projects. Under the "ultimate development" concept, hydropower rate structures were set up to repay irrigation project costs and the costs of the power generation facilities. In addition, power was reserved for irrigation operations, but could be suballocated to other power consumers pending development of the irrigation projects. Pick-Sloan power, of course, would also be supplied at low rates to public entity "preference customers."

Hydropower production has far surpassed the 758,500 kilowatts initially proposed in 1944. The power facilities were designed in the 1950s for an installed capacity of 1,797,000 kilowatts, but increased equipment efficiency has actually resulted in 2,398,000 kilowatts of installed capacity for the Pick-Sloan hydropower system, more than triple the capacity envisioned by the Bureau of Reclamation in 1944. Overall, Pick-Sloan hydropower constitutes approximately 37% of South Dakota's total electric power consumption, including 21% of the municipal power and 47% of the rural power in the state. Pick-Sloan hydropower serves approximately 250,000 of South Dakota's 700,000 citizens, although most hydropower consumers must rely on power from other sources as well.

It is important to note, however, that South Dakota only receives 17% of the power marketed from the mainstem dams, even though approximately 65% of the power from the dams is generated in South Dakota (1985 data). In fact, Minnesota, with only a small corner of its territory in the Missouri basin, and with no other real links to Pick-Sloan, receives about 24% of Pick-Sloan hydropower. While low-cost hydropower is certainly a significant benefit for the people of South Dakota, it in no way compensates South Dakota for its Pick-Sloan sacrifices or for the benefits that were promised for the state. Many people are no longer aware that hydropower revenues were the primary means intended for financing South Dakota's Pick-Sloan water development projects or that irrigators were to receive low-cost power for their irrigation operations. (See Figure 5.)

Federalization of the Missouri River Resource. As previously noted, when South Dakota agreed to the Pick-Sloan program and to



PICK-SLOAN IRRIGATION DEVELOPMENT
PROPOSED VS. ACTUAL

FIGURE 4

PICK-SLOAN HYDROPOWER USE BY STATE

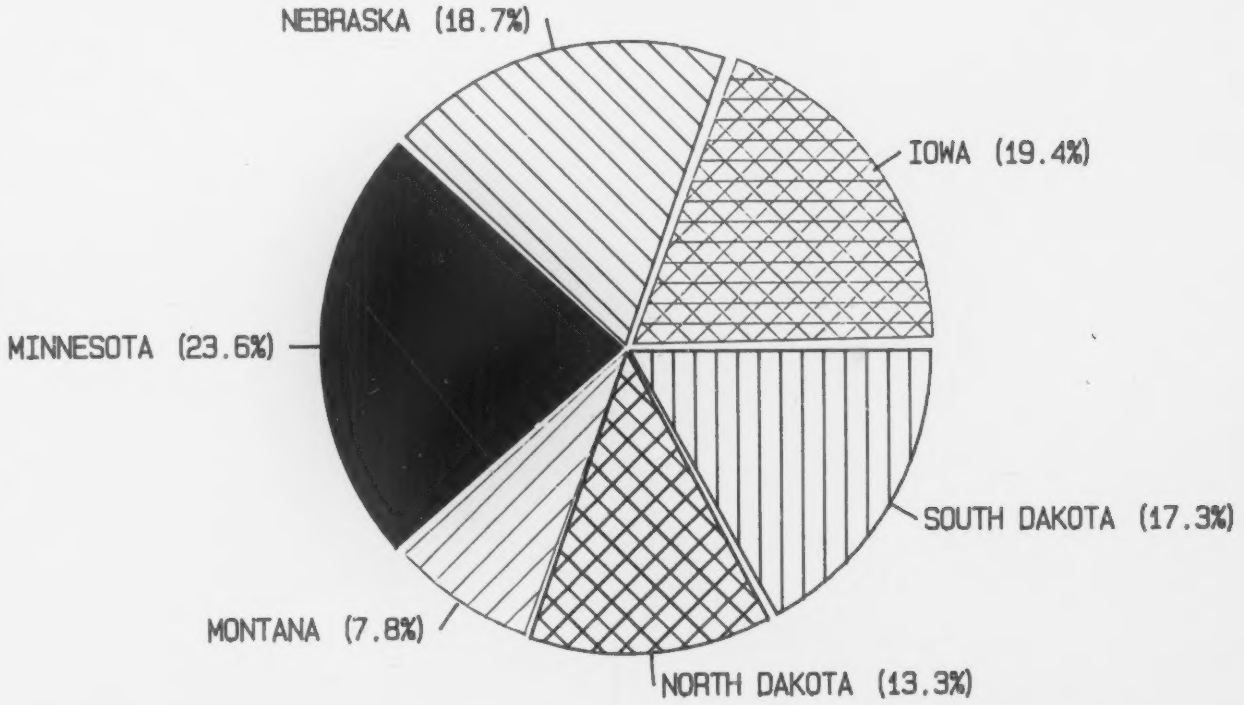


FIGURE 5

the sacrifices and benefits that were promised, the state also lost its ability to develop its Missouri River resources on its own. Federalization of the Missouri River was part of the Pick-Sloan bargain, but if South Dakota cannot be compensated as originally intended under Pick-Sloan, then some form of compensation to South Dakota for the severance and use of its Missouri River water is definitely in order.

C. THE PICK-SLOAN PLAN - INEQUITIES

South Dakota has sacrificed much and gained very little so that Iowa, Nebraska and Missouri could be made safe from flooding and have access to navigation on the river, and so that low-cost hydropower could be made available to states like Minnesota, Iowa and Nebraska.

-South Dakota lost more than 520,000 acres of land inundated by the mainstem reservoirs, including almost 180,000 acres on the already economically devastated Indian reservations. The downstream states, on the other hand, actually gained 188,000 acres of land through construction of the navigation channel, most of which was converted to agricultural use. An additional 364,000 downstream agricultural acres are protected from flood and erosion damage.

-Flood control and navigation work downstream were done at 100% nonreimbursed federal expense, while upstream benefits were to be paid by irrigators and hydropower consumers.

-Bank stabilization downstream of Sioux City is provided through the flood control and navigation projects at 100% nonreimbursed federal expense. Below the mainstem dams, however, bank erosion is a serious problem that has been made much worse by releases from the dams. Bank stabilization in the upstream states is not an eligible Pick-Sloan expense.

-South Dakota, when it agreed to the Pick-Sloan program and the inundation of more than half a million acres of land, was promised 972,000 acres of irrigation. Since 1944, South Dakota has seen the development of only 24,100 acres of irrigation under the Pick-Sloan program. Nebraska, which lost only 15,000 acres inundated and gained additional farm acres protected from flooding, has so far received 284,000 acres of Pick-Sloan irrigation in operation or under construction.

-The U.S. Fish and Wildlife Service estimates that about 340,000 acres of some of the most valuable and critical terrestrial wildlife habitat in South Dakota were inundated due to construction and subsequent operation of the reservoirs. The publicly-owned wildlife resource that inhabited these areas is also gone.

-The downstream states, which gained flood control, navigation and hydropower benefits through the inundation of land in South Dakota, agreed in the O'Mahoney-Milliken amendment to give upstream beneficial consumptive uses priority over downstream navigation. The downstream states, however, along with railroad interests, took South Dakota's ETSI Pipeline to court in part because of the alleged effects of this miniscule diversion of water on the highly subsidized navigation industry. Because of this court action, the ETSI project has been terminated, costing South Dakota $1.4 billion in potential revenues over the next 50 years.

-South Dakota receives only 17% of the power produced at the Missouri River dams, even though about 65% of Pick-Sloan power from the dams is produced in South Dakota, and even though South Dakota lost 31.1% of the total lands flooded by the dams. Nearly two-thirds of Pick-Sloan power goes to Iowa, Minnesota and Nebraska, which lost virtually no land, and, in the case of Iowa and Nebraska, gained most of the Pick-Sloan benefits promised them.

-As of 1985, according to a report by Dr. Jay Leitch ("Economic Impact of Missouri River Mainstem Dams in South Dakota, 1985"), foregone economic activity in South Dakota resulting from inundation of land by the four Missouri River dams has totaled $1.1 billion ($79 million in 1985 alone) since the dams were completed. A second report by Dr. Leitch ("Economics of Hydroelectric Ownership and Marketing in South Dakota") concludes that South Dakota also loses an additional $71 million annually in foregone economic activity resulting from the federalization of the Missouri River hydropower resources, which effectively precluded the state from developing Missouri River hydropower on its own. The persons who benefit from the Pick-Sloan plan generally live in other states. (See Figure 6.)

Pick-Sloan Damages to South Dakota. South Dakota has suffered extensive costs related to the Pick-Sloan program. The $1.1 billion of foregone economic activity resulting from inundated lands and the loss of $71 million per year in power-related economic activity foregone are not South Dakota's only Pick-Sloan related damages.

CUMULATIVE ECONOMIC ACTIVITY FOREGONE
MAINSTEM RESERVOIRS IN SOUTH DAKOTA

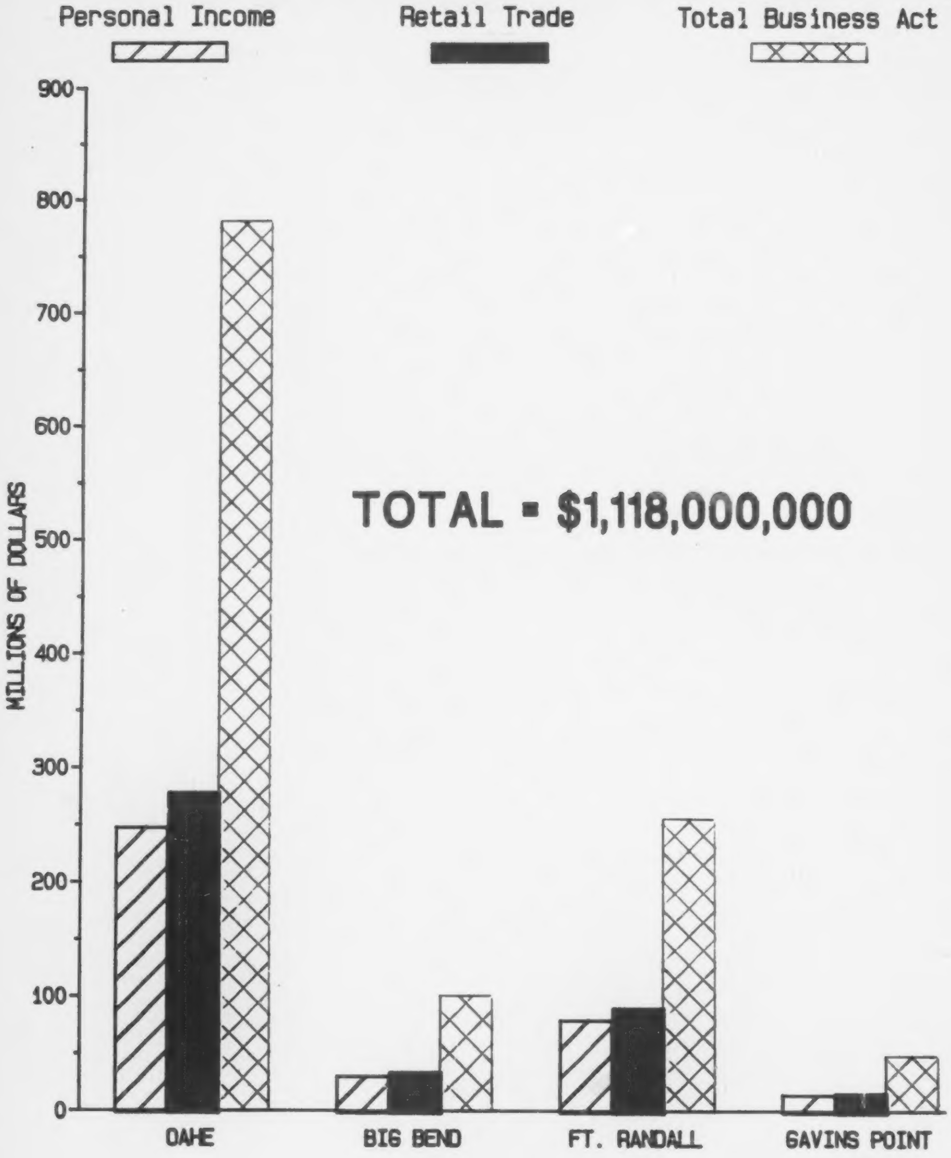


FIGURE 6

At 1986 price levels, the 972,000 acres of irrigation projects that South Dakota was promised in return for its lost lands and lost hydropower development opportunities would cost $3.2 billion to construct. South Dakota in effect was promised $3.2 billion worth of irrigation development that has not occurred. In addition, the state has not received the economic benefits that the construction and operation of these projects would have generated.

South Dakota has suffered substantial environmental and fish and wildlife damages and more than 340,000 acres of wildlife habitat lost. South Dakota has also suffered serious bank erosion damages caused directly by the Pick-Sloan program in the areas downstream of the dams and in the lower reaches of Missouri River tributaries, due to fluctuations in releases from the dams. While South Dakota has gained recreational benefits from the Pick-Sloan reservoirs, those benefits, based on federal standards and guidelines, are offset by recreational and environmental losses caused by the loss of the natural Missouri River and Missouri River bottomland habitat.

Further, South Dakota has received no compensation for its lost Missouri River water resources, even though these resources are legitimate factors in the cost of Missouri River hydropower, and are currently being supplied by South Dakota free of charge. Nearly 60% of the tax collections of the State of Montana and 30% of North Dakota's and Wyoming's tax collections come from resource severance taxes. Some of these severed resources produce coal-fired electricity. (Only 0.5% of South Dakota's tax revenues come from severance taxes.) While the resource severance laws do not apply in the same way for water resources, the principle is the same. South Dakota water (and flooded South Dakota land) produces electricity just as other states' coal produces electricity.

It can be stated with certainty that South Dakota has suffered damages caused by the Pick-Sloan program totaling several billion dollars. South Dakota believes the settlement of these damages is warranted, reasonable and long overdue. Although South Dakota has made genuine sacrifices and undergone significant costs to enable implementation of the Pick-Sloan program, the state has not received the benefits that it is entitled to based on the Pick-Sloan agreement.

D. PROBLEMS IN ACCOMPLISHING WATER DEVELOPMENT GOALS

During the past few years, it has become clear that large-scale traditional Pick-Sloan irrigation projects, such as Oahe and

Garrison, face serious economic and political obstacles in Washington, D.C. In addition to the termination of the Oahe project and the severe reduction in North Dakota's Garrison project, the Bureau of Reclamation has announced that it is ceasing work on the CENDAK irrigation project. Even Lake Andes-Wagner, a smaller-scale irrigation project for which the state holds serious hopes, has been dealt hard bureaucratic blows in recent months by new federal benefit-cost calculation requirements that label the project infeasible. The mission of the Bureau of Reclamation is officially changing from project development to resource management. Federal budget pressures, coupled with increasing environmental opposition to large-scale irrigation projects and urban resistance to complex and confusing farm program price supports and crop surpluses, make traditional Pick-Sloan water development very difficult.

If South Dakota cannot devise acceptable Pick-Sloan alternatives that fit modern-day water and economic development needs, the state's Pick-Sloan benefits will be lost. There are many interests at the national level that threaten the Pick-Sloan hydropower system and its repayment and power rate structure, which are currently set up to pay for future Pick-Sloan irrigation projects. Many groups see Pick-Sloan hydropower as just another source of revenue that could be used to put money into the federal treasury to ease federal deficits. It is with these threats to the Pick-Sloan program that the water initiative must deal.

It is clear that water development today operates under a much different set of rules than in the 1940s and 1950s when the downstream projects were constructed. South Dakota now faces serious federal budget problems and cost-sharing requirements, as well as stringent environmental restrictions and fish and wildlife mitigation requirements, which significantly increase construction costs and make project development more politically difficult. With respect to Pick-Sloan, South Dakota finds itself in the position of having the rules changed in the middle of the game.

E. OBJECTIVES OF SOUTH DAKOTA'S WATER INITIATIVE

South Dakota's water initiative is an attempt to revitalize the Pick-Sloan program to fit modern-day water development needs while obtaining for South Dakota a level of benefits commensurate with South Dakota's Pick-Sloan costs and sacrifices and with the promises made in 1944. The key is to devise appropriate and acceptable alternatives to traditional large-scale Pick-Sloan irrigation development. A revitalized Pick-Sloan program representing real projects that serve modern needs will allow South Dakota to share equitably in the Pick-Sloan program.

South Dakota has been trying for decades, with very little success, to obtain its Pick-Sloan benefits through the traditional project-by-project approach. A major purpose of the water initiative is to allow South Dakota to speak with one unified voice in Washington, D.C. and to advance a coordinated, realistic proposal for settlement of the Pick-Sloan issue.

CHAPTER II

Board of Water and Natural Resources Hearings and Issues

A. PUBLIC HEARINGS

During September and October of 1987, the Board of Water and Natural Resources (BWNR) held eight public meetings across the state on the water initiative. Locations of the meetings were: Rapid City, Miller, Huron, Platte, Sioux Falls, Brookings, Pierre and Murdo. More than 350 individuals participated in the meetings including municipal leaders, water development districts, chambers of commerce, county commissioners, local water project sponsors, state legislators, Indian tribal representatives, environmental and other special interest groups.

The general attitude of the meeting participants was that in order for South Dakota to resolve the Pick-Sloan issue, a statewide consensus must be developed before approaching Congress. Concern was expressed that Congress will become less and less inclined to recognize the Pick-Sloan commitment and that the state can't afford to continue approaching Congress in a piecemeal fashion. Meeting participants generally agreed that a single settlement framework would relieve the confusion in Congress that occurs when South Dakota project sponsors propose different projects at different times all under the Pick-Sloan banner.

The Missouri River Cost Recovery program, or "revenue stream" as it was generally referred to by the public, received the most discussion at the public meetings and participants strongly supported the need for such a revenue stream for future projects as well as those already being planned. A majority of participants conditioned their support on the understanding that the revenue be utilized in the same manner as the ETSI monies, i.e., that the revenue would be deposited into the Water Facilities Construction Fund for the development of water projects. Various needs expressed were: 1) funding for infrastructure development; 2) lake restoration; 3) municipal projects; 4) rural water systems; 5) groundwater protection and 6) cost-sharing for larger projects.

Public meeting participants also pointed out the need for developing an effective strategy to secure Congressional approval of the South Dakota Pick-Sloan settlement package. Many individuals suggested that if South Dakota is to accomplish its settlement goals, the state must appropriate adequate funding for the effort.

The BWNR concluded from the public meeting process that there is widespread support for pursuing a Pick-Sloan settlement package which would include a permanent revenue stream for water development.

B. FEDERAL POLICY ISSUES

During the course of the water initiative hearings, the BWNR heard from a number of federal agency officials on current federal policy issues. The information the BWNR received from these officials was taken into consideration in making the final recommendations for the water initiative.

Dick Shirk, Western Area Power Administration, explained the power rate structure and the annual power repayment review process. Prior to 1986, 21.8% of the power investment was allocated to irrigation. Based on the 1986 power repayment study, 15.8% of the investment in power facilities is allocated to irrigation to be repaid without interest. The 1986 power repayment study incorporates the Garrison Reformulation Act of 1986 which deauthorized 870,000 acres of irrigation from ultimate development. As a result, an additional $130 million must now be repaid by power revenues with interest. This would have increased power rates if the power repayment schedule had not been extended from the year 1998 to 2035. The Garrison Reformulation Act allows Pick-Sloan power to be used, unlike in the past, for not only irrigation pumping, but for rural, municipal and industrial water projects as well.

John Lawson, Bureau of Reclamation, presented information on CENDAK irrigation project drainage issues. One of the most difficult technical issues for CENDAK is irrigation of glacial till soils. Initially, the Bureau of Reclamation estimated that 100% of the acreage would need drainage. The CENDAK Drainage Steering Committee was formed to study this issue and will complete a report on drainage needs for the CENDAK project by the end of 1987. Preliminary findings of the committee indicate that: 1) extensive use of the glacial aquifers in the area overlain by unweathered till is not a viable option for drainage; 2) less than half of the proposed irrigated acreage will require artificial drainage; and 3) the impacts to the underlying aquifer system will not occur because the nearly impermeable unweathered till lying above the aquifer will not allow irrigation water to enter the aquifer.

Arvid Thomsen, Corps of Engineers, discussed new federal requirements as specified by P.L. 99-662 (the Water Resources Development Act of 1986). Under these new policies, 100% of the funding for hydropower projects, 25% of flood control project costs, and 50% of project study costs will have to come from sources other than the federal government. Mr. Thomsen said hydropower upgrading offered great potential and would benefit both the rate payer and the financial sponsor. Mr. Thomsen also discussed federal policy on private development along the Missouri River, and said the COE supports such development on public lands as long as the facilities are available for public use.

Bill E. Martin, Bureau of Reclamation, explained the Bureau of Reclamation's recently completed assessment of the future direction of the reclamation program. The key conclusion of the assessment is that given federal budget deficits, surplus crops and environmental concerns, the Bureau's mission must change from one based on federally supported construction to one based on effective and environmentally sensitive resource management. The focus of the Bureau will shift away from construction of major projects to smaller scale projects that are primarily nonfederally funded and directed toward optimizing resources already in place. In conjunction with this new direction, the Bureau of Reclamation is issuing the CENDAK Planning Report/Draft Environmental Statement as a concluding report and has stated that no further action will be taken on the CENDAK project at this time.

C. CRITERIA FOR PROJECT INCLUSION

The BWNR decided that in selecting projects for inclusion in the Pick-Sloan settlement package, the same criteria should apply as those used for the State Water Plan:

-The project is necessary for the needs and general welfare of the people of South Dakota.

-The project preserves a free-flowing stream or river possessing unique natural scenic beauty, water conservation, fish, wildlife and outdoor recreational values of present and future benefit to the people of the state.

-Economic development projects that encourage and strengthen the economy of the state.

-Health and safety projects that correct serious health hazards.

-Consolidated or regional projects that stabilize or improve the economy of the state through sound fiscal and land management.

-Expansion of existing systems that provide an increase in services and promote the objectives stated above.

The BWNR decided that the federal benefit-cost ratio should not be the sole or even the primary criterion for inclusion in the package. The BWNR finds that federal benefit-cost ratios for irrigation projects do not reflect the total benefits to the local and state economy. For example, it is estimated that only 15% of irrigation project benefits go to the irrigating farmers. The remaining benefits go to local businesses and governmental entities, but these benefits are not recognized by the federal government. Additionally, the surplus crop issue is figured into federal benefit-cost ratio computations, but this does not take into consideration that most of the crops produced will be used to feed local livestock and will not contribute to the surplus crops problem.

A stable livestock feed base will help to stabilize the local agricultural economy, particularly during times of drought when livestock herds must otherwise be sold off. In fact, in 1973 with high cattle prices, South Dakota ranked 21st in the nation in per capita income, while in 1976, with a devastating drought that forced the selling of cattle herds because of a lack of local feed, South Dakota ranked 49th in per capita income. (In 1970 and 1979, more normal years, South Dakota ranked 38th and 39th, respectively, in per capita income.) There is clearly a need for more stability in South Dakota's agricultural economy, and irrigation could help provide that stability.

The BWNR also determined that it would be nearly impossible to compute a benefit-cost ratio for rural water systems since these systems provide health benefits that cannot be measured in terms of dollars. The BWNR believes that health considerations generally should outweigh cost-benefit calculations.

CHAPTER III

Missouri River Cost Recovery Program

A. CONCEPTS

An important aspect of South Dakota's water initiative is the proposed Missouri River Cost Recovery program. The Cost Recovery program would provide an annual "revenue stream" for South Dakota water development projects to reimburse the state for some of the costs it has incurred as a result of the Pick-Sloan program. Governor Mickelson has stated that the "bottom-line" of the cost recovery program is to secure the revenue assistance for water development always intended under the Pick-Sloan program for South Dakota, and to do so in a manner that will not adversely affect South Dakota public power consumers.

Public power and Pick-Sloan are closely intertwined in South Dakota and the Missouri Basin. Through the Pick-Sloan program, a tremendous power system has been developed and substantial benefits have been derived from this system. Of course, these benefits have been produced at a real and substantial cost to both the federal government and the state. The federal government provided the funds for the construction of the Missouri River dams and hydropower facilities, and this debt is being repaid with interest.

The cost to South Dakota in conjunction with Missouri River hydropower, flood control and navigation development, although less direct and therefore less obvious than the federal costs, has nevertheless been substantial. Based on independent economic analyses recently completed by Dr. Jay Leitch (referenced earlier in this report), the land inundated by the four Missouri River reservoirs in the state would have produced in 1985 approximately $79 million in total business activity. Cumulatively, the state has foregone over $1.1 billion in total business activity since the construction of the Missouri River reservoirs. In addition, the state's inability, because of federal development and control of Pick-Sloan Missouri River hydropower resources, to develop Missouri River hydropower on its own, costs the state approximately $71 million per year in foregone economic activity.

Besides the loss of the inundated bottom lands, the tax base, the farms, and the income associated with such productive land use activities, South Dakota lost the opportunity to develop, control and derive the full economic benefits from one of the state's greatest natural resources - the energy contained in the Missouri River. At the time the resource was federalized through the creation of Pick-Sloan, this cost to South Dakota was recognized, and the Pick-Sloan program was designed in a manner that would reimburse the state for such costs and permit the state to participate in the program as a full partner on both the receiving and the giving ends. The Pick-Sloan program was set up to compensate the state in the form of capital investments in income-producing irrigation projects. These capital investments in irrigation have always been treated as proper items of "cost" in the Pick-Sloan preference customer hydropower rates and have constituted a legitimate portion of the total rate base.

Thus, the hydropower component of the Pick-Sloan program was created to serve two fundamental purposes: 1) the provision of reliable cost-based hydropower to preference customers, and 2) the generation of revenues to cover the cost of water development and economic development in the upper basin states. In fact, the hydropower rates in place today are structured to not only cover the repayment of the federal investment in the existing hydropower facilities (point 1), but to also provide about $5.4 billion in power revenue assistance to help cover the costs of the development of more than 2.7 million acres of irrigation (point 2). This concept of joint natural resource development and a joint sharing of revenues derived from such resources is not unique to the Missouri River; it is common to other major river resources in the West (Colorado River, Columbia River, etc.), and it is also common to the severance and development of coal resources in western states.

While several Missouri River Cost Recovery program alternatives have been suggested - all basically designed to reimburse the state and provide economic benefits - the BWNR has primarily addressed two proposals: upgrading of the Missouri River hydropower facilities in South Dakota, and payment in-lieu-of-taxes.

B. UPGRADING

Governor Mickelson's proposal to upgrade the efficiency of power generation facilities on the Missouri River dams is patterned after a number of other such projects in the Missouri Basin and the West. In 1982, the State of Wyoming contributed about $17 million of the cost of increasing the hydropower potential of Buffalo Bill dam. In 1984, several nonfederal entities agreed to finance the upgrading of Hoover Dam. In 1985, the Sam Rayburn Municipal Power Authority entered into a hydropower facility financing agreement with the Corps of Engineers relating to Town Bluff Dam in Texas, and in 1986, Idaho Falls, Idaho signed a similar agreement with the Bonneville Power Administration. Also, in 1986, the U.S. Congress authorized an agreement between the Corps of Engineers, the Southwest Power Administration, and the Cherokee Nation of Oklahoma whereby the Cherokee Nation would finance the construction of hydropower facilities at W.D. Mayo Lock and Dam.

Upgrading of the Oahe, Ft. Randall and Gavins Point hydropower facilities would involve the installation of new runner blades and other efficiency improvements. The total cost would be approximately $56 million, and the project collectively could generate an additional 356,000,000 kilowatt hours of low-cost electricity annually. The state would issue revenue bonds to cover the cost of the upgrading work, and would receive a revenue stream sufficient to cover debt service and, to a very small extent, begin reimbursing the state for the costs incurred in conjunction with the construction of the Missouri River mainstem dams in South Dakota. Actual revenue amounts have not yet been determined.

The Corps of Engineers would continue to own and operate the Oahe, Ft. Randall and Gavins Point facilities under the upgrading proposal, and the additional output would be marketed by the Western Area Power Administration to existing public power customers consistent with existing preference power principles.

C. PAYMENT IN-LIEU-OF-TAXES

The proposal by East River Electric to make Pick-Sloan payments in-lieu-of-taxes to South Dakota in conjunction with the Missouri River federal hydroelectric facilities is basically similar to the Boulder Canyon project. The Boulder Canyon Project Act of 1928 (Sec. 4) authorizes the Secretary of Interior to make annual payments ($600,000) to Arizona and Nevada, and this principle was reaffirmed in the Boulder Canyon Adjustment Act of 1940 (Sec. 2). In fact, the Boulder Canyon Adjustment Act stipulates that such payments in-lieu-of-taxes to Arizona and Nevada should be included as part of the basic charges established by the Interior Secretary for the sale of electrical energy generated at Boulder dam.

While South Dakota collects a gross receipts tax from rural electric cooperatives in-lieu-of local property taxes, the state does not receive compensation from the federal government for the Missouri River hydropower facilities, the energy generated, or the transmission of such energy. The payment in-lieu-of-tax proposal could partially correct this inequity.

In order to implement the payment in-lieu-of-tax proposal, Congressional legislation would be required. The legislation would authorize and direct the Western Area Power Administration to make payments in-lieu-of-taxes to South Dakota and other Missouri River basin states where facilities are located for Pick-Sloan generation and transmission facilities, and to include these payments as a built-in cost of the Pick-Sloan hydropower system. Again, revenues to South Dakota under this option have not yet been determined.

D. IMPLEMENTATION

The key to the Missouri River Cost Recovery program is to structure it in a manner that provides a source of revenue to partially fund water projects and that precludes unwarranted revisions in the Pick-Sloan hydropower rate structure and the ultimate development concept. The Pick-Sloan hydropower allocation and repayment system is complex and sensitive, but there is clear historical justification for establishing a Missouri River Cost Recovery program for South Dakota. There is certainly the possibility for controversy over power issues, but there are also some opportunities for compromise inasmuch as the state and public power both have a strong interest in maintaining the Pick-Sloan power system and the ultimate development concept.

Governor Mickelson has pledged that the Missouri River Cost Recovery program must be structured in a manner that will not adversely impact South Dakota preference power consumers, but the effects of various cost recovery options on power rates are not clear. Hydropower upgrading, payment in-lieu-of-taxes and other options such as reallocation of Pick-Sloan costs, possibly in combination with payment in-lieu-of-taxes, must be carefully investigated and considered by all involved interests prior to proceeding with any such plans.

CHAPTER IV

Water Initiative Recommendations

A. FINDINGS

In announcing the water initiative, Governor Mickelson emphasized the need to recognize the national economic and political changes that have taken place since the Pick-Sloan program was approved by Congress in 1944. The Governor further emphasized the need to be realistic and to solve South Dakota's contemporary water problems.

It is clear that the federal-state water development relationship has changed greatly over the past four decades. Today federal budget deficits, surplus crop problems, and greater emphasis on environmental values present serious obstacles to major water development. Hydropower is limited and coal-fired power is relatively expensive. Outside interests at the national level have threatened to dismantle the Pick-Sloan program. Such attacks, if successful, would inevitably lead to higher hydropower rates and loss of benefits intended under the Pick-Sloan program.

The basic purpose of South Dakota's water initiative is to finally gain for South Dakota an equitable share of the benefits of the Pick-Sloan program and to protect the people of South Dakota from the current threats to Pick-Sloan water development and Pick-Sloan hydropower consumers.

After extensive consideration of the issues brought forth during the water initiative public hearings, the Board of Water and Natural Resources (BWNR) issues the following findings:

1. The state must move forward with sound, realistic water projects in order to solve current water supply needs and to demonstrate the viability of the Pick-Sloan program. If such development does not occur, the state will suffer economically, and outside interests will seize the opportunity to dismantle the Pick-Sloan program and raise hydropower rates;

2. The state must move forward with a settlement package in a careful and deliberate manner to avoid adverse effects to South Dakota power consumers;

3. The proposed Missouri River Cost Recovery program is a sound concept worthy of being pursued aggressively, but several policy and technical issues must be resolved before proceeding with actual implementation;

4. The BWNR notes that the 1986 agreement between Congress and the State of North Dakota to settle North Dakota's Pick-Sloan claims through reauthorization of the Garrison Diversion Unit project requires a substantial reduction in irrigation acres, but includes provisions for rural water development and fish and wildlife mitigation;

5. The BWNR also notes that the Garrison Diversion Unit settlement has resulted in the elimination of additional power rate adjustment flexibility in the Pick-Sloan power repayment schedule. Thus, any Pick-Sloan program revisions must be carefully crafted to avoid an adverse power rate effect;

6. South Dakota has suffered several billion dollars in damages and foregone economic activity as a direct result of the Pick-Sloan program including: $1.1 billion in foregone economic activity resulting from the inundation of reservoir lands, $71 million per year in foregone economic activity resulting from the federalization of the state's opportunity to produce hydropower on the Missouri River, $3.2 billion worth of irrigation projects promised as part of the Pick-Sloan compromise, the economic benefits that would have been generated by those irrigation projects, Missouri River bank erosion damages, Missouri River fish and wildlife and other environmental damages, and lack of reimbursement for South Dakota's severed Missouri River water resources;

7. There is sufficient historical and economic justification for a long overdue Pick-Sloan settlement and for moving forward with water projects that will translate the Pick-Sloan commitment to South Dakota into reality; and

8. Any full or partial settlement of federal Pick-Sloan obligations to South Dakota does not preclude South Dakota from seeking federal funding and development for other water projects. A Pick-Sloan settlement would simply settle past federal obligations to South Dakota and would put South Dakota on equal footing with other states.

B. RECOMMENDATIONS: MISSOURI RIVER PICK-SLOAN PROJECTS COMPONENT

Based on public hearing input and historical and economic considerations, the BWNR makes the following recommendations with respect to Pick-Sloan projects (BWNR recommendations for the Missouri River Cost Recovery program are found in Part C.):

1. The BWNR recommendations for Pick-Sloan projects fall into two categories: short-term project objectives that are ready for Congressional action, and long-term objectives that should be preserved and pursued at the appropriate time.

   The BWNR stresses that while the short-term recommendations represent a first step in the settlement process, they do not constitute, and should not be viewed as a final settlement of the federal obligation to South Dakota under the Pick-Sloan program. The BWNR is aware of political and economic realities and the difficulties they present for water development in South Dakota. The BWNR is adamant, however, about the injustice that South Dakota has endured with respect to Pick-Sloan, and the BWNR is adamant that South Dakota should continue to press in the future for a full settlement of its Pick-Sloan entitlements.

2. The short-term objectives include the development of projects listed in the following pages totaling $760.2 million. This amount includes $60.2 million for projects under construction, $265 million for projects proposed for construction (with planning completed), and $435 million for projects proposed for construction (with further planning required).

3. The long-term objectives include the development of the CENDAK project as part of the ultimate development concept, and the Gregory County Pumped Storage Hydroelectric project at a time when energy requirements so dictate. The BWNR recognizes the unique status of the Gregory County Pumped Storage Hydroelectric project and recommends that the hydropower portion of that project be pursued vigorously using federal or nonfederal financing sources. The BWNR finds, however, that nonfederal financing may be the most likely funding option. The BWNR further recommends federal financing for the multipurpose water supply features of the project.

4. The BWNR reaffirms the potential value of the CENDAK project to the State of South Dakota and recommends that the project be reserved for future development, but recommends no action on the CENDAK project, recognizing that current fiscal, economic and political realities at the national level preclude development of the CENDAK project in the immediate future.

Short-Term Objectives

The projects included in this category represent a variety of contemporary needs in South Dakota and benefit a broad range of South Dakota citizens. Most require state and local cost-sharing, and project sponsors have already made substantial contributions of state and local money and effort. Some of these projects have already obtained Congressional authorization and are seeking appropriation; some are seeking Congressional authorization.

Projects Under Construction	Project Cost	
Belle Fourche Irrigation Rehabilitation	$42.2	million
WEB Rural Water System	18	"
Subtotal (Remaining costs to complete)	$60.2	million
Projects Proposed for Construction (With Planning Completed)		
Lake Andes-Wagner/Yankton Sioux Irrigation Project	$165	million
Lyman Jones/West River/Oglala Sioux Rural Water System	100	"
Subtotal (Total project costs)	$265	million
Projects Proposed for Construction (With Further Planning Required)		
Gregory County Pumped Storage Multipurpose Water Supply and Irrigation Project	$100	million
James River Flood Control	20	"
Mid-Dakota Rural Water System	100	"
Missouri River Fish and Wildlife Mitigation	35	"
Missouri River Streambank Erosion Control	75	"
Missouri Riverside Irrigation Integration	5	"
Rural and Municipal Water Supply Systems	100	"
Subtotal (Total project costs)	$435	million
Total	$760.2	million

Long-term Objectives

The long-term objectives of this agreement include the future development of the CENDAK and Gregory County Pumped Storage Hydroelectric projects when conditions are appropriate for such development. The BWNR considers these projects to be an integral component of this Pick-Sloan water initiative. In addition, any final settlement of South Dakota's Pick-Sloan claims must include federal recognition and the ultimate resolution of a Pick-Sloan Damage Claim in the amount of $1.1 billion (as of 1985 and at 1985 price levels). This damage claim is compensation for the lost economic opportunity associated with Missouri River inundation in South Dakota as documented in the study by Dr. Jay Leitch cited in Chapter I. The BWNR maintains that this claim must be resolved in addition to the short-term and other long-term Pick-Sloan project objectives.

Project Descriptions

Belle Fourche Irrigation Rehabilitation Project. The project has received federal funding and has been integrated into the Pick-Sloan program, but rehabilitation work is just underway. The project has strong local support. Total project cost is $48.4 million, and $42.2 million is needed to complete the effort.

CENDAK Project. The CENDAK project is a traditional Pick-Sloan multipurpose project originally proposed as an alternative to the Oahe irrigation project. A full-sized CENDAK project would irrigate 474,000 acres in central South Dakota using Missouri River water, and would provide water for rural domestic and recreational purposes. The BWNR also recognizes the value of irrigation to the livestock industry and the potential role of irrigation in stabilizing the livestock feed base. The BWNR reiterates that CENDAK is a feasible project, that it would provide substantial benefits to the state, and that South Dakotans are entitled to this kind of development.

The BWNR recognizes the value of future large-scale irrigation development in South Dakota and the nation, and fully respects the vision and effort of the CENDAK local project sponsors to develop this project. (See "CENDAK Summary Report" as documentation of the feasibility, benefits, and future potential of the CENDAK project.) The BWNR further recognizes the value of the ultimate development concept and the need to maintain the opportunity for future irrigation development through the Pick-Sloan hydropower system as originally intended under the Pick-Sloan plan. For these reasons, the BWNR recommends that the

CENDAK project be preserved for eventual development. The BWNR reluctantly recognizes, however, that current fiscal, economic and political realities at the national level preclude development of the CENDAK project in the immediate future.

The CENDAK project cost is estimated at $1.1 billion on a traditional federal basis, and at $750 million on a nonfederal/local construction basis.

Gregory County Pumped Storage Project. The Gregory County Pumped Storage project includes a hydropower component and a multipurpose water supply component for irrigation, rural and municipal purposes. The rural water system could serve Gregory County and the Rosebud Sioux Indian Reservation. The project has strong local and statewide support, but timing and financing of the hydropower function are unresolved issues. The hydropower portion of project may not be needed until 1995 at the earliest, although a phased construction of the hydropower function could solve some of the timing problems. The hydropower function will probably require nonfederal funding given current federal policy.

The BWNR finds that the second component of the Gregory County Pumped Storage project, the water supply facilities for multipurpose water supply and irrigation purposes, is appropriate for federal funding and recommends federal funding for the water supply facilities as part of the water initiative.

The Gregory County Pumped Storage project is authorized (P.L. 99-662) at a cost of $1 billion for the hydropower function, and $100 million for the multipurpose water supply and irrigation function.

James River Flood Control. The James River Draft Environmental Impact Statement has been completed the preferred alternative has been selected. This alternative calls for a three-stage project including 1) limited channel clean-out and recreation and wildlife improvements, 2) tributary drainage control, and 3) bank stabilization. The cost of stage one is about $4.91 million; the cost for the second and third stages has not been determined. While federal funding may not be required for stage one, the overall flood control project has been authorized (P.L. 99-662) at $20 million.

Lake Andes-Wagner/Yankton Sioux Irrigation Project. The Lake Andes-Wagner/Yankton Sioux project has strong local support and would benefit a significant number of Indian and non-Indian users through stabilizing the local supply of livestock feed grains, which would in turn stabilize the local economy. At 48,000 acres, the project is of manageable size, and is located close to the Missouri River in one of the areas impacted by Pick-Sloan dams. The project is basically a smaller scale traditional Pick-Sloan irrigation project; it has completed the study phase and is ready for Congressional authorization and funding. Project cost is $150 million.

Lyman Jones/West River/Oglala Sioux Rural Water System. This project has strong local support. The project has a significant number of both Indian and non-Indian beneficiaries and will satisfy critical needs for decent quality and quantities of domestic water for people and livestock. One current municipal water system in the project area currently violates primary federal standards for radium, and a second system is likely to violate new primary federal standards for uranium, which are expected to be promulgated. There are a large number of secondary federal standard violations throughout the project area. Existing water supplies pose health threats, damage pipes, fixtures and equipment and are aesthetically poor. Many residents are forced to haul water over long distances. Project cost is estimated at $100 million ($35 million for Pine Ridge Reservation portion and $65 million in non-Indian counties).

Mid-Dakota Rural Water System. The Mid-Dakota Rural Water System has substantial local interest and support. This project would provide decent quality and quantities of water for domestic and livestock purposes to an area of the state that has a critical need for good water. A reconnaissance study for the Mid-Dakota project has been completed, and a detailed feasibility study is required as the next step in the development process. Project cost is $100 million.

Missouri River Fish and Wildlife Mitigation. The Pick-Sloan dams and reservoirs caused severe environmental damage that has not been addressed. Approximately 340,000 acres of prime wildlife habitat was destroyed by the reservoirs. Project cost is $35 million.

Missouri River Irrigation Integration. Several small, existing irrigation projects near the Missouri River have substantial interest in integration into the Pick-Sloan program to be eligible for low-cost Pick-Sloan power. These projects would be subject to reclamation law. Two existing irrigation districts, Gray Goose and Hilltop, have already been integrated by Congress (P.L. 99-662) into the Pick-Sloan program. The riverside irrigation issue was raised during the BWNR public hearing process, and there was discussion of whether Pick-Sloan integration should be available to existing irrigators statewide, rather than limited to Missouri River irrigators. The BWNR recommends limiting integration to Missouri River irrigators since the Missouri River corridor is where the inundation of lands by the dams occurred, and since it is the area where many original Pick-Sloan units were to be located.

In addition, the BWNR supports Pick-Sloan Missouri River irrigation integration if it:

-Complies with all pertinent reclamation law,
-Consists of a legally established entity for contracting purposes, and
-Does not cause an adverse effect on power rates for South Dakota consumers.

With respect to the concern that Pick-Sloan Missouri River irrigation integration would raise power rates, the BWNR recommends that an appropriate analysis be completed on rate effects as soon as possible.

Cost to conduct the necessary irrigation integration soils and repayment investigations is $5 million.

Missouri River Reservoir Lands. The BWNR has considered and rejected a proposal to request the return of Corps of Engineers Missouri River reservoir lands to the State of South Dakota for public and private development. The BWNR recognizes existing federal policy which allows for the leasing and development of such lands as long as the developed facilities are open for public use. The BWNR emphasizes the state's interest in building on this federal policy and will reconsider the proposal to transfer the federal lands to the state if the COE does not cooperate in the implementation of its existing policy on leasing federal lands.

Missouri River Streambank Stabilization. Releases from the mainstem dams have caused serious bank erosion below the dams and on downstream tributaries, such as the James River, the Vermillion River, the Bad River, and the Big Sioux River. These problems are caused by federal action and should be addressed by the federal government. Project cost is $75 million.

Rural and Municipal Water Systems. Federal funding for municipal and rural water systems is being reduced. These projects are essential for public health, environmental, economic development and quality of life purposes. Funds are necessary for rural water system extensions and for new municipal systems such as the potential Slip Up Creek project in Sioux Falls, South Dakota.

Statement of John Stevenson, Associate Administrator
Agricultural Stabilization and Conservation Service
U. S. Department of Agriculture
before the
Subcommittee on Water and Power
Committee on Energy and Natural Resources
United States Senate
September 14, 1989

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to appear before you to provide the Department of Agriculture's views on S. 202.

S. 202 would authorize the Secretary of the Interior to construct, operate, and maintain the Lake Andes-Wagner Unit and the Marty II Unit, South Dakota, as Units of the South Dakota Pumping Division, Pick-Sloan Missouri Basin Program.

The Department of Agriculture (USDA) defers to the Department of the Interior regarding the economic and environmental feasibility of the projects. As requested in your letter of invitation, our comments are limited to Section 2(e) on agricultural programs.

Section 2(e), "Agriculture Programs," would maintain the crop acreage base and the farm program payment yield for land receiving irrigation water from the Units at the levels established for the crop year preceding the crop year in which the development period of each Unit starts. For programs applicable to crop years after 1990, the acreage and yield on which program payments to affected producers are based would be determined without considering increases resulting from the irrigation facilities.

The proposed legislation would, therefore, have the effect of restraining potential increases in deficiency payments (and, when authorized, diversion payments) that are partially determined by crop acreage bases and program payment yields. Current farm legislation does not completely protect against program cost increases associated with increases in program yields and crop acreage bases. Program yields are frozen only under certain conditions and additional cropland may be entered into the crop acreage base over a 5-year period.

USDA is interested in finding a solution to the double subsidy issue. However, the Department has philosophical difficulties with proposals such as Section 2(e) of S. 202 that create a small class of agricultural producers whose farm program benefits are determined by criteria not applicable to other producers. Section 2(e) would treat a small group of producers differently than other producers, including those who are in a similar situation in that they are also receiving subsidized irrigation water. USDA program rules are generally applied uniformly to all farmers except, e.g., cover requirements on idled land which are established to be suitable for local conditions. We believe that fairness to producers, efficiency in program administration, and program understanding are better served if special rules are kept to an absolute minimum.

The provisions of Section 2(e) can be implemented and would likely result in a decrease in farm program outlays. Such measures would be necessary to curtail farm program expenditures unless the forthcoming farm legislation deals directly with the costs associated with the factors, such as program yields and crop acreage bases, that determine program outlays.

This concludes our testimony, Mr. Chairman, and I will be happy to respond to any questions.

Senator **Bradley**. Thank you very much, Mr. Stevenson.

Why don't we go now to Marc Goldhammer?

STATEMENT OF MARC GOLDHAMMER, MANAGER, LAKE ANDES-WAGNER WATER SYSTEMS, INC., WAGNER, SD

Mr. **Goldhammer**. Good afternoon, Senator. Thank you very much for having us.

Senator **Bradley**. Nice to see you again.

Mr. **Goldhammer**. I do have a few people that I want to introduce. They came a long way. And they are a very, very important part of the project, and this project is very, very important to those people. If those people, as I introduce them, would please stand up so the committee could at least know who we are introducing.

I have with me today my chairman of our board, Mr. Leo Holzbauer. Leo is a farmer, a school board member, and has a fine family of five children.

Our secretary is here, Mr. Dan Svatos. Dan is also a family farmer within our project area, has three children, and has been very, very active in trying to do some new things with irrigation.

I have with me our vice chairman, Mr. Chuck Eitemiller. Chuck is a family farmer. He has four children. Chuck is very much into livestock enterprises and trying to do some innovative farming with irrigation from wells.

I have with me our director, John Uecker. John also serves on our school board and is a father of six children.

I have a lady with me today that has a long history in water development in our State, Pat Cerny. Pat is the director from the Southern Missouri Water Development District. And if you want to know something about regional benefits, why, she serves on the six county water development district and has a lot of good things.

Also, last but not least, why, I want to introduce our Washington counsel, Mr. Edward Weinberg, who assists us in many ways getting through this legislative process.

As I said, why, we certainly appreciate this opportunity today. I want to try and summarize my statement as much as I possibly can. However, we do have a number of important points that I think that we need to bring up.

Senator **Bradley**. Please make the points, but try to make them as succinctly as possible.

Mr. **Goldhammer**. First of all, I forgot one thing. My friend, Louis Archambeau, also has delivered testimony here. Louis is a councilman from our Yankton Sioux Tribe, and because of family illness, it was impossible for him to be here. I would like his statement and the statements of the people that I introduced—respectfully, if they could be put into the record, I would appreciate that very much.

Senator **Bradley**. They will be part of the record as a part of your testimony.

Mr. **Goldhammer**. The reason that we are here today, of course, is to support and complete the finalization of S. 202 before this committee. I think that a couple of things have come up different times during the total hearing process that there always seems to be a misunderstanding. And today in a very quick glance, Mr.

Campbell's testimony with the Wildlife Federation poses that same question. It has come up before, and I want to try and answer it for the committee so that there is not any misunderstanding.

First of all, let me assure this committee that we do not have any new full-service lands coming into production. It goes back to an inference in our planning report where we state that we have almost 5,000 acres of grassland at the time that the report was printed. And that is a true statement. The grasslands that we are talking about are tame grass that are raised for the production of hay and seed, and they are rotated in our part of the country like you would rotate oats and corn and alfalfa and those things. So, we do not have 5,000 acres of new, virgin grassland that is coming into production. That is a misunderstanding, and I just want to clarify that part.

There is also a misunderstanding that some people think that we are going to use supplemental water on the Lake Andes-Wagner project as though the whole project is irrigated. And when we understand supplemental water, we think of it in terms of supplementing irrigated land that already has a shortage of water and they need a little more to make the job. If there is any inference to supplemental water in our planning report, it is in inference to the fact that the good Lord gives us a small amount of rainfall, and the water that we need for the Lake Andes project would supplement the natural rainfall that we do have, whatever that amount may be.

And so, I hope that the committee understands that we do not have a different situation, that we have a dry land situation. We do have about 4,000 acres within our project that is irrigated from wells. The well water quality is very, very marginal and those people want to convert to Missouri River water which is the finest water that can be found anywhere to irrigate.

Let me go on now very quickly. It causes me a lot of concern and my project sponsors and certainly the members of the Yankton Sioux Tribe in regard to the 3,000 Marty II project. You heard the Bureau of Reclamation's Mr. Hall state their recommendations that the project not be built. However, we want the committee to be sure to understand that the Yankton Sioux Tribe, the Indian people, still have 1,700 acres in our Lake Andes-Wagner project and we are committed to do the things that are stated in S. 202 to help them accomplish the development of that 1,700 acres.

We are positive that the Lake Andes-Wagner project—you heard the Governor's statement. We are positive that the economic development possibilities for our area is just almost without end if we can get the water for the Lake Andes-Wagner project developed.

We want the committee to understand that Lake Andes-Wagner sponsors support a rural economic development alternative for Marty II which will assure the tribe that they can expand the tribe's Yankton Sioux farm project and otherwise participate in the diversified agricultural plan for the Lake Andes-Wagner project area. And we strongly support that if there is something that can be done for these people who are in dire need, why, we will work with you in any way that we can to try and accomplish that.

What more can I say? The Indian and non-Indian communities are united. We both see this legislation as enabling our region to realize development and not be tied to the traditional and sometimes surplus crop situation.

This leads us to the issue of diversifying crops grown in our region. And we have been asked the question many times will the farmers actually raise a non-subsidized alternative crop. And those farmers are more than willing to stand up and answer how quickly can we get started.

Today, why, I have with us and at the committee's disposal Leo Holzbauer and Dan Svatos, both of them very active farmers, and they would be happy to share their present experiences with you in efforts to changing to non-surplus crops. As the committee may seem appropriate, if you want to hear from these gentlemen, why, we can do that.

However, under the time constraints, I will move forward and just let you know that these farmers are doing a fantastic job preparing for the day when the Lake Andes-Wagner unit delivers irrigation water.

You heard the State of South Dakota has pledged its resources in support for agri-facilities to process crops grown with an assured water supply and especially those crops which do not require government support.

We have today, I am happy to report, people from—Mr. Graves is here and other supportive people from public power. And they are here to offer their strong support the Lake Andes-Wagner unit. And I want you to know, Senator Bradley, that the local REAs have pledged their cooperation in developing incentive rates and providing other financial assistance as appropriate.

Without question, I think that we feel that we have the financial capabilities in place to assist with the agri-processing. And I have with me today Mr. Gary Juffer from Commercial State Bank at Wagner who works with the—he is the vice president of the bank. He works with financial things. And if you would have any questions or any misgivings about whether that is a true statement, I would invite you to ask Mr. Juffer to address that.

Senator BRADLEY. Mr. Goldhammer, you have been going 15 minutes. Do you think you could wind down?

Mr. GOLDHAMMER. I have about two things to cover. In regard to the surplus crop thing, I think that we can hold our thing to about 33 percent of the acreage. I think our surplus crop provision is probably the most equitable and easily administered of any provision that was ever thought of.

I have a couple of pictures that I would like to offer for the committee's use in regard to Red Lake and Owens Bay, showing the need for water to enhance those projects.

If you have any questions about our up-front and our cost share proposal, why, I would be willing to answer them. I know that it is well stated in our legislation. So, I won't spend any time on that.

[The prepared statement of Mr. Goldhammer follows:]

STATEMENT OF

MARC GOLDHAMMER

ON BEHALF OF THE LAKE ANDES WAGNER PROJECT SPONSORS

TO THE

SUBCOMMITTEE ON WATER & POWER CONSIDERING S. 202

UNITED STATES SENATE

SEPTEMBER 14, 1989

THE HONORABLE BILL BRADLEY, CHAIRMAN

The Lake Andes Wagner/Marty II project sponsors appreciate the opportunity to testify. We are hopeful that this hearing will bring S. 202 to a positive conclusion.

The project sponsors acknowledge the vital contributions made by the Bureau of Reclamation and the State of South Dakota in developing S. 202. We further acknowledge the efforts and support of the South Dakota Congressional delegation, Senator Daschle, Senator Pressler, and Congressman Johnson.

The planning and pre-construction engineering phases of the Lake Andes Wagner Unit have been completed. The Unit is ready to go. We are present today to support and complete the finalization of S. 202 before this Committee.

We are greatly concerned over the situation in which our neighbors of the Yankton Sioux Tribe find themselves. The Tribe had expected that the irrigation of 3,000 acres in the Marty II Unit, along with the irrigation of the Indian owned land in the Lake Andes Wagner Unit (presently some 1,700 acres), would provide the foundation for economic development which would make a significant dent in the present 87% unemployment rate among Tribal members with the attendant depressing problems that such an unemployment rate brings in its wake. Regretfully, it now appears that the Marty II Unit will have to shelved, at least for the time being, because the Bureau of Reclamation has advised that its investigations, while not final, are showing that Marty II presents environmental problems regarding trace elements that cannot be satisfactorily resolved at this time. The Lake Andes Wagner sponsors support the Yankton Sioux Tribe's economic development proposal and share their environmental concerns.

The Lake Andes Wagner sponsors support a rural economic development alternative for Marty II which will assure the Tribe that they can expand the Tribe's Yankton Sioux Farm Project and otherwise participate in the diversified agriculture planned for the Lake Andes Wagner project area. The Yankton Sioux Tribal members are a proud people, but they are intimidated and restrained by the lack of opportunity for decent paying jobs. Together the Indian and non-Indian communities are trying to solve these depressing and suppressing problems. The combining of the Yankton Sioux Tribe rural economic development alternative and the authorizing of the Lake Andes Wagner irrigation Unit will be a major step in making our region a better place to live, work and play.

The Indian and non-Indian communities are united. They both see this legislation as enabling our region to realize development and not be tied to traditional and sometimes surplus crops. Further, this region will finally have a stable supply of feed to maintain a profitable livestock base. When a harsh Dakota winter comes we all can appreciate the livestock owner's feeling of security when the feed supply is adequate and readily available. However with the ever present threat of drought we have many South Dakotans worried if they have enough feed for the long winter season of 1989 and 1990.

This leads to the issue of diversifying the crops grown in our region. We have been asked the question, "Will the farmers actually raise non-subsidized alternative crops?" Our answer is "How quickly can we get started?" Very few of the local farmers are fortunate enough to be located over underground water supplies that enable them to irrigate approximately 4,000 acres from wells within the project area. This well water is not up to the quality of the irrigation water that will be supplied by the Lake Andes Wagner Unit. Nevertheless, these farmers are doing a fantastic job of preparing for the day when the Lake Andes Wagner Unit delivers irrigation water. These farmers are developing a potato base with the assistance and support of a major processor who has recognized the potential of this region and is seriously committed to discuss and plan a new food processing facility for this region. The oil seed crops are continually requiring more acreage and interest has been high in establishing an oil extraction plant in this region pending the authorization of the Lake Andes Wagner project.

The State of South Dakota has pledged its resources and support for agri facilities to process crops grown with an assured water supply, expecially those crops which do not require govenment support payments.

The Executive Director of the Mid-West Electric Consumers Association, which represents the REA's the Municipalities and the other public bodies that distribute Pick Sloan Power is present today to offer strong support for the Lake Andes Wagner Unit. The electric coops serving the Lake Andes Wagner area are committed to assist the agri business in developing new processing facilities as they relate to the Lake Andes Wagner Unit, and have pledged their cooperation in developing incentive rates and providing financial assistance as appropriate.

Without question the financial capabilities are in place to assist agri processing. The authorization of Lake Andes Wagner Unit will convert opportunities into real business.

The Charles Mix County Commissioners are offering 5 year property tax forgiveness on new facilities and the list goes on. The aformentioned incentives will go a long way in making diversified farming a reality.

Alfalfa is a rotation crop that historically fits into the region's cropping systems. Baled alfalfa hay is always in demand, but local interests and the Yankton Sioux Tribe have been discussing and planning for an Alfalfa cube and pellet plant to be built as soon as the Lake Andes Wagner Unit is slated for construction. Irrigated alfalfa will always be a big part of the Lake Andes Wagner Unit cropping system.

The local sponsors are confident that we can consistantly maintain a minimum of 33% of the projects acreage in non surplus crops and the need for additional federal regulation to control cropping systems is unwarrented and unnecessary The livestock enterprises of the region will thrive and the crops grown for livestock will readily be consumed within the region.

The surplus crop provision in S. 202 is an unsolicited offer from the local sponsors and it is designed to lay to rest the double subsidy issue. Both the Departments of Agriculture and Interior have commented favorably on it. The provision caps all subsidy at the dryland yields and acreages. It is fair and equitable to all concerned.

Environmental concerns have been addressed and environmental committments are included as an attachment to this statement. The recommendations of the planning report for mitigation and enhancement were developed with the participation of U.S. FIsh & Wildlife specialists and South Dakota Game, Fish and Parks personnel. The project sponsors fully support them.

The project sponsors are strong proponents of Wildlife enhancement and environmental quality. Wildlife needs food, cover and water, this project will provide it.

The Lake Andes Wagner project sponsors fully support developing additional wetlands enhancement opportunities available in South Dakota, as described by Governor Mickelson in his statement today.

The Lake Andes Wagner project sponsors have joined with the State of South Dakota to present the best possible cost share package. The State of South Dakota and the Lake Andes Wagner sponsors will cost share $39.5 million for facilities and the project sponsors will administer the construction of the distribution system resulting in an additional $6.5 million savings to the Federal Government. In addition, the Sponsors have taken an active role in the planning process and during the planning process they contributed $1,750,000 of which $640,000 was for contracted services with the BOR and the remaining balance was private study contracts conducted by the District which the Bureau utilized in project formulation.

The region has witnessed a steady out migration of population since 1950 when the Missouri mainstem Dams were built and the river bottom land was taken from landowners for project purposes. Some of these people moved on to other States and the sad fact is we are continually exporting our children and young people. The region is looking to this authorizing legislation with strong expectations that with the passage of S. 202 we who live within the Lake Andes Wagner project areas, can extend an invitation to our sons and daughters to consider staying or moving back to South Dakota.

On behalf of the project sponsors I want to thank Chairman Bill Bradley and the entire committee for the opportunity to testify. I urge speedy mark up and favorable action on S. 202.

WEB Rural Water System. The WEB project is close to completion, although some additional funding will be required to finish the project ($18 million). The project has strong local support.

C. RECOMMENDATIONS: MISSOURI RIVER COST RECOVERY COMPONENT

The BWNR recommends that the Missouri River Cost Recovery program be designed to provide an annual revenue stream for water project cost-sharing requirements and for contemporary and future state/local water projects and resource management activities in South Dakota, including but not limited to:

Clean Lakes
Groundwater Protection
Flood Control
Rural Water System Development/Expansion
Municipal Water and Wastewater Systems
Dam Safety
Hydrology Studies

Parameters. The Missouri River Cost Recovery program should be built upon the principle that the integrity of consumer hydropower rates be maintained and that the revenue stream be structured to benefit all the citizens of South Dakota while recognizing preference power principles. In addition, the BWNR strongly recommends that the revenues generated by the Missouri River Cost Recovery program be deposited into the South Dakota Water Facilities Construction Fund.

The BWNR recognizes that a number of issues involving the cost recovery revenue stream and Pick-Sloan hydropower are unresolved, and the BWNR is sensitive to the concerns of the public power community over such issues. These issues include proper rates of return for the state, power rate impacts, hydropower markets and supplies, and appropriate structures and mechanisms for implementing the cost recovery program.

Missouri River Cost Recovery Authority. The BWNR recommends the establishment of a Missouri River Cost Recovery Authority to structure and implement the cost recovery system so as not to adversely affect South Dakota public power users and to recommend how such revenues should be used for the benefit of all South Dakota citizens. The BWNR also recommends that the Authority pay special attention to the needs of South Dakota's Native American population, who were also severely impacted by the Pick-Sloan program.

The Authority should evaluate proposals such as the upgrading of Missouri River hydropower facilities (including an evaluation of the energy efficiency of such upgrading), a payment in-lieu-of-tax mechanism, a reallocation of Missouri River costs and benefits, the integration of nonirrigation water projects into the Pick-Sloan program as part of the ultimate development concept and other appropriate measures. In evaluating these proposals the Authority should consider legal, policy, technical, energy, institutional, financing, and economic issues and concerns.

The Authority should be composed of nine members: two at-large members appointed by the Governor, two members of the BWNR appointed by the Governor, two members of the State Legislature appointed by the Governor, one member appointed by the South Dakota Rural Electric Association, one member appointed by the South Dakota Municipal Electric Association, and one member appointed by the Investor Owned Electric Companies of South Dakota. The Governor will appoint the chairman from among the nine members.

D. STRATEGY FOR CONGRESSIONAL ACTION

The BWNR recognizes the difficulty of pursuing Congressional action on these recommendations and emphasizes the need for the state to develop a strategy for successful implementation of South Dakota's Missouri River Pick-Sloan Water Initiative in Washington, D.C. The BWNR concurs with the suggestion made by a number of individuals during the public meeting process that funds should be made available to secure Congressional approval of the settlement package, and recommends the appropriation of $500,000 from the state's general fund to the Water Facilities Construction Fund for the purpose of financing the effort.

Items that may need funding include:

-The development of educational materials,
-Congressional and federal agency liaison,
-Travel and per diem,
-Field hearings, and
-Regional coordination efforts.

Finally, the BWNR recommends that the State of South Dakota make a concerted effort to encourage statewide and regional participation in the Congressional lobbying effort. Only through broad-based support will the state be able to realize the objectives of the South Dakota Missouri River Pick-Sloan Water Initiative.

Senator **Bradley**. Let me thank you, Governor Mickelson, for your testimony. Let me thank both Senator Daschle and Senator Pressler for your testimony.

I have a few questions that I want to ask Governor Mickelson. You answered in your statement some of the questions that I had, particularly about wildlife and also about the surplus crop problem.

Now, one of the things that was not clear specifically to me is what the State is doing to try to reduce reliance on commodity crops.

Governor **Mickelson**. In the Lake Andes-Wagner Project, the hard question that we have to answer before this committee in the authorization and the appropriation process is whether or not there is a reality for specialized crops. And the answer to that is yes. There already is. In fact, in that area there is potato contracting. There are other kinds of crops like that. And specialized crops in agriculture today I think is very much an issue in the 21st century. We are pursuing that.

Our delegation here just within the last two or three months held a meeting with national food processing companies because we believe that with the other changes in the contemporary world, that processing does not necessarily have to happen as it was in the days when the large processing plants in metropolitan areas were designed and built, but that they will be at the area of production. And we are seeing signs of that so long as we can convince them that we have the transportation and that we have a stable crop base.

Senator **Bradley**. So, you will help us try to resolve the conflict we face between wanting to encourage rural agricultural economic development and the need to avoid exacerbating the surplus crop problem.

Governor **Mickelson**. I absolutely do not disagree with that at all, and I believe that is a very fair question, something we have to answer. We believe that we are prepared to answer it.

Senator **Bradley**. I know you mentioned both Mid-Dakota and Lake Andes, and I know this is a tough question for anyone, particularly for the chief executive of a State. But, how do you weigh those two? They are somewhat different projects.

Governor **Mickelson**. They are different projects and they are in a different stage of their development. I intend to push very hard for Mid-Dakota at the appropriate time also. And they are different projects.

Mid-Dakota is much the same kind of a project that Mni Wiconi was when we came before you a year ago where we are talking about a rural water system.

Senator **Bradley**. Drinking water.

Governor **Mickelson**. Drinking water. That's right.

If you were going to ask me to rank them, they are both number one.

Senator **Bradley**. I was going to ask you that, but I thought that would be an unfair question. And, I expected that you probably would say they are of equal importance.

Governor **Mickelson**. I have shared with you before, Mr. Chairman, our priorities in the package that we developed so that as we come here as a State we are not arguing between projects at all. I think we need to get our ducks in line. We have done that, and I think we are really moving forward on these hopefully.

Senator **Bradley**. Well, again I want to thank all of you for your testimony. I think that it was very helpful and it is clearly a unified delegation. That is always helpful, too.

Senator Conrad, would you like to ask any question of this group? We do want to move on because the next panel has five witnesses.

Senator **Conrad**. If I might just inquire, Mr. Chairman, if any of the national food processing companies that you are talking to are New Jersey based companies. [Laughter.]

Governor **Mickelson**. No.

Senator **Conrad**. And if you could share that list with our Governor. [Laughter.]

Governor **Mickelson**. And they are not from North Dakota either.

Senator **Bradley**. Senator Burns.

Senator **Burns**. I have no questions.

Senator **Bradley**. I thank all three of you very much.

Now we have the benefit of hearing from John Stevenson, Associate Administrator, Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture. Please take your place up here in the row. Marc L. Goldhammer, manager, Lake Andes-Wagner Water Systems, welcome back to the subcommittee. Steve Cournoyer, chairman, Yankton Sioux Tribe; Mr. David Campbell, resources economist, National Wildlife Federation; Scott Parsley, staff assistant, East River Electric Power Cooperative, Madison, South Dakota.

Joe, do not leave now. We want you to stay.

On this panel we want to start with the Bureau. That is why I did not want you to leave, Joe. Mr. Hall.

STATEMENT OF JOE D. HALL, ACTING COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON S. 202, ACCOMPANIED BY ROGER PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION

Mr. **Hall**. Mr. Chairman, I appreciate the opportunity to testify on this bill as well, S. 202, Lake Andes-Wagner unit and the Marty II unit.

Reclamation has previously testified before this committee on similar legislation. In that testimony, Reclamation did not oppose authorization of the Lake Andes-Wagner unit provided certain conditions were met. And there are four of those. Mr. Chairman, at your pleasure, I will just leave them in the record or go through them.

Senator **Bradley**. I would go through them quickly.

Mr. **Hall**. All right, sir.

One was that actual construction would not be authorized to begin until submission to the Congress by the Secretary of the Interior of a final planning report finding that the project is both economically justified and environmentally feasible and that project sponsors enter into a legally binding agreement containing cost sharing provisions acceptable to the Secretary.

Second, no authorization of new full-service, non-Indian lands as part of the project.

Third, repayment on a straight-line amortization schedule, not to exceed 40 years, of any irrigation assistance needed by hydropower revenues for the project.

And, fourth, the legislation must retain the provision that any crop program payments be based on pre-project, dry-land yields.

The Bureau did, however, oppose authorization of the Marty II unit because appropriate studies had not been completed. Since that last hearing nearly 2 years ago, we initiated an investigation of the Marty II unit which is nearing completion.

As part of the investigation, Reclamation conducted tests to determine the presence of trace elements in the soil and water within the project area. Although the final analysis is not complete, the test results indicate the presence of high levels of the trace element selenium. Based on these preliminary findings, we do not recommend irrigation development within the Marty II project area.

Mr. Chairman, it is important to also note that trace element tests were conducted in the Lake Andes-Wagner project area during the investigations completed in 1985. The initial results were that they would not pose a significant water quality problem should the land be developed for irrigation, but we are in the process of reconfirming those findings under updated testing procedures.

If the Lake Andes-Wagner unit is authorized for construction, the State of South Dakota, project sponsors and the Bureau of Reclamation are committed to developing the project in an environmentally sensitive and responsible manner.

The current cost of the project is $181 million based on October 1989 prices.

The specifics of the cost sharing plan are spelled out in the bill. The cost sharing plan is a step in the right direction toward the administration's efforts to increase the amount of non-Federal participation in these types of projects. However, we cannot support the cost sharing plan as presented in the sponsor's proposal dated January 25, 1989, absent up-front cost sharing. Therefore, we would suggest that the bill be modified to provide the Secretary the authority to negotiate a cost sharing agreement more favorable to the United States.

Lastly, I would add that in order to preserve the managerial discretion of the Secretary, we object to the inclusion of language in section 4(c) which requires the Secretary of the Interior to request that the President include funds in the annual budget.

Mr. Chairman, that completes my statement.

[The prepared statement of Mr. Hall on S. 202 follows:]

Statement of Joe Hall, Acting Commissioner, Bureau of Reclamation, Department of the Interior, representing the Department of the Interior before the Senate Subcommittee on Water and Power, Committee on Energy and Natural Resources on S. 202 a bill to authorize the Secretary of the Interior to construct, operate, and maintain the Lake Andes-Wagner Unit and Marty II Unit of the Pick-Sloan Missouri Basin Program, South Dakota.

September 14, 1989

Mr. Chairman, I appreciate this opportunity to testify on S. 202, a bill "to authorize the Secretary of the Interior to construct, operate, and maintain the Lake Andes-Wagner Unit and the Marty II Unit, South Dakota Pumping Division, Pick-Sloan Missouri Basin Program, South Dakota."

On December 15, 1987, the Commissioner of Reclamation testified before this Committee on similar legislation. In that testimony, Reclamation did not oppose authorization of the Lake Andes-Wagner Unit but only if the bill was amended to include -- or retain, the following conditions:

1. Actual construction would not be authorized to begin until:

    o submission to Congress by the Secretary of the Interior a final planning report finding that the project is both economically justified and environmentally feasible, and

    o project sponsors enter into a legally-binding agreement containing cost sharing provisions acceptable to the Secretary;

2. No authorization of new full-service, non-Indian lands as part of the project;

3. Repayment on a straight-line amortization schedule not to exceed 40 years of any "irrigation assistance" needed by hydropower revenues for the project; and

4. The legislation must retain the provision that any crop program payments be based on pre-project, dry-land yields.

Further the Commissioner testified that, "Although we would not oppose authorization of this project if these conditions are met, I must point out that the Administration is committed -- at a time of unprecedented fiscal constraints and a change in focus in the Bureau of Reclamation -- to completing those Reclamation projects that are substantially underway. Should the Lake Andes-Wagner project be authorized, it would be the newest project, and therefore, would necessarily be placed at the very end of the priority list for construction appropriations."

For this reason, and in order to preserve the managerial discretion of the Secretary of the Interior and the President on whether and when to request appropriations, and the integrity of the unitary nature of the Executive Branch, we object to the inclusion of the language in Section 4(c). This language requires the Secretary of the Interior to request that the President include funds in the annual budget permitting completion of construction.

The Bureau, however, did oppose authorization of the Marty II Unit because appropriate studies had not been completed. The purpose of the Marty II Unit was to enhance the agricultural economy of the Yankton-Sioux Tribe and thereby enhance tribal well-being. The study grew out of the efforts of the Tribe, Lake Andes-Wagner Unit supporters, State of South Dakota and Bureau of Indian Affairs. Since that hearing nearly two years ago, we initiated an investigation of the Marty II Unit which is nearing completion.

As part of the investigation, Reclamation conducted tests to determine the presence of trace elements in the soil and water within the project area.

Although the final analysis is not complete, the test results indicate the presence of high levels of the trace element selenium. Based on these preliminary findings, we do not recommend irrigation development within the Marty II project area.

Reclamation has conducted an investigation of the Lake Andes-Wagner Unit resulting in a Planning Report/Final Environmental Statement which was filed with EPA in September 1985. The Lake Andes-Wagner Unit would irrigate 45,000 acres which are currently under production, including approximately 1,700 acres of Indian-owned land on the Yankton-Sioux Reservation in southeastern South Dakota. Of the 45,000 acres, approximately 4,000 are now being irrigated by wells from a confined ground-water aquifer. The project would lift water about 230 feet from

Lake Francis Case to a main canal which would transport the water to the project area. S. 202 provides on-farm pumps, sprinkler systems, and other on-farm facilities required for the irrigation of the Indian-owned lands be included as part of the project. The Bill further provides that electric power and energy required to operate the facilities for the irrigation of Indian-owned lands and to provide pressurization for such Indian-owned lands be a project use.

Mr. Chairman, it is important to note that trace element tests were conducted in the Lake Andes-Wagner project area during the investigations completed in 1985. The tests indicated that trace elements would not pose a water quality problem should the area be developed for irrigation. We are in the process of reconfirming those findings under updated testing procedures. Results of this testing will be available this month.

If the Lake Andes Unit is authorized for construction, the State of South Dakota, project sponsors, and the Bureau of Reclamation are committed to developing the project in an environmentally sensitive and responsible manner. The Planning Report/Final Environmental Statement includes a description of environmental measures which will enhance fish and wildlife resources and mitigate the loss of wildlife habitat including wetlands. At the present time there are approximately 1,580 acres of wetlands in the project area. Following project construction there would be about 930 acres of wetlands resulting in a net loss of 650 acres, which would be replaced with grasslands and wetlands. To mitigate the loss of wetland value about 330 acres of existing wetlands would be acquired and provided with a water supply through turnouts to be constructed by the project. Mitigation of other project impacts would be accomplished by creating 175 acres of woodland by planting trees and shrubs on lands to be acquired and acquiring 2,180 acres of grassland replacement to be reseeded to native grasses. The project will also provide water to Owens Bay on Lake Andes and to Red Lake which will improve management capability of these wildlife management areas and provide water to the replacement wetlands. In addition, a fish rearing impoundment would be constructed as a fish and wildlife enhancement feature of the project.

The current cost of the project is $181,686,000 based on October 1989 prices. The specifics of the cost-sharing plan are spelled out in the Bill. The cost-sharing plan is a step in the right direction towards the Administration's efforts to increase the amount of non-Federal participation in these types of projects. However, we cannot support the cost-sharing plan as presented in the sponsors' proposal dated January 25, 1989, absent upfront cost-sharing. Therefore, we would suggest the Bill be modified to provide the Secretary the authority to negotiate a cost-sharing agreement more favorable to the United States.

The issue of surplus crops is also addressed in S. 202. The bill provides that Federal crop subsidy payments by USDA will be limited to dryland production and acreage and will not include any increases in yield due to irrigation. We are also aware of ongoing efforts by the State and the project sponsors to identify ways of reducing the amount of surplus crops grown on the project lands such as locating processing industries to support the production of specialty or nonsurplus crops.

That concludes my testimony on S. 202, and I would be pleased to answer any questions the committee may have at this time.

Senator **Bradley**. Thank you very much, Mr. Hall.

I would like at this point to yield to Senator Conrad who has made a special request to ask you a few questions, Mr. Hall, and then we will go on.

Senator **Conrad**. I want to thank the chairman for graciously allowing us to do this.

Mr. Hall, I have several questions that I would like to ask you for the purposes of the record.

The Lake Andes-Wagner planning report final environmental statement was completed and filed with EPA in September of 1985, was it not?

Mr. **Hall**. Yes, that's correct.

Senator **Conrad**. I am going to read you two sentences out of the conclusions of that report. The first is: "The preferred plan for the Lake Andes-Wagner unit is economically justified and financially feasible." The second is: "The net effect of the unit on environmental quality will be neutral or insignificant."

These conclusions are still the bureau's conclusions, are they not?

Mr. **Hall**. Senator, you have accurately described what was in the report in 1985, and that was the last report that we have done.

Senator **Conrad**. All right.

Mr. Hall, I want to refer you to the advance planning data sheet for the project which appears in the Department of the Interior's budget justifications for fiscal year 1990 for the Bureau of Reclamation which was submitted in support of the President's budget for fiscal year 1990. The Lake Andes-Wagner budget justification shows in the upper right-hand corner a favorable benefit-cost ratio for the Lake Andes-Wagner unit.

Do you have that document, or have you had a chance to refer to it? And could you tell me whether or not the statement I have made is correct?

Mr. **Hall**. Senator, your statement is correct.

Senator **Conrad**. The budget justification also states I believe, as I have circled on the lower right-hand corner, which I think you have a copy of, that the final NEPA compliance was accomplished in September of 1985. Is that also correct?

Mr. **Hall**. Yes, it is, sir.

Senator **Conrad**. And finally, the justification paragraph starts out by saying, "The project will stabilize the agricultural economy of the area especially during drought periods and will provide a better quality of life in the area." That is what the official budget justification for the fiscal year 1990 budget summary says. Is that correct?

Mr. **Hall**. Yes, it is, sir.

Senator **Conrad**. Finally, Mr. Hall, am I correct that the budget justification cannot be submitted to Congress without clearance from the Office of Management and Budget?

Mr. **Hall**. That is correct, Senator.

Senator **Conrad**. Thank you, Mr. Chairman. I appreciate having a chance to get those questions on the record and answered, and appreciate very much Mr. Hall's responses as well.

Mr. **Hall**. Thank you, Senator.

Senator **Bradley**. Thank you very much, Senator Conrad.

Senator Burns, do you have any objection to proceeding with the rest of the witnesses?

Senator **Burns**. I have no objection. In fact, I must leave.

Senator **Bradley**. I see. Well, thank you for attending the hearing.

Senator **Burns**. Thank you.

Senator **Bradley**. Let's begin with the Mr. Goldhammer.

Senator **Burns**. If Pat Gant is for it, I am for it. [Laughter.]

Senator **Bradley**. I'm sorry. Let's begin with Mr. Stevenson and just go down. That is probably the fairest way.

STATEMENT OF JOHN STEVENSON, ASSOCIATE ADMINISTRATOR, AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE

Mr. **Stevenson**. Thank you, Mr. Chairman, for this opportunity and to the members of the committee.

Let me abbreviate my comments to section 2(e) of S. 202.

Agricultural programs would maintain the crop acreage base and the farm program payment yield for land receiving irrigation water from the Lake Andes-Wagner and Marty II units at the levels established for the crop year preceding the crop year in which the development period of each unit starts. For programs applicable to crop years after 1990, the acreage and yield on which program payments to affected producers are based would be determined without considering increases resulting from the irrigation facilities.

The proposed legislation would, therefore, have the effect of restraining potential increases in deficiency payments and, if authorized, diversion payments that are partially determined by a crop acreage basis and program payment yields. Current farm legislation does not completely protect against program cost increases associated with increases in program yields and crop acreage bases. Program yields are frozen only under certain conditions and additional crop land may be entered into the crop acreage base over a five-year period.

USDA is interested in finding a solution on the double subsidy issue. However, the department has philosophical difficulties with proposals such as section 2(e) of S. 202 that create a small class of agricultural producers whose farm program benefits are determined by criteria not applicable to other producers. Section 2(e) would treat a small group of producers differently than other producers, including those who are in a similar situation in that they are also receiving subsidized irrigation water.

USDA program rules are generally applied uniformly to all farmers except, for example, cover requirements for idled acres which are established to be suitable to local conditions. We believe that fairness to producers, efficiency in program administration and program understanding are better served if special rules are kept to an absolute minimum.

The provisions of section 2(e) can be implemented and would likely result in a decrease in farm program outlays. Such measures would be necessary to curtail farm program expenditures unless the forthcoming farm legislation deals directly with the cost associated with the factors, such as program yields and crop acreage bases, that determine program outlays.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Stevenson follows:]

LIST OF ENVIRONMENTAL COMMITMENTS

1. Pumping Plant
    a. ¼-mesh fish screens will be installed on each pumping bay
    b. Intake velocity at .5 foot per second.
    c. Top lip of intakes will be maintained at a depth of 20 feet during spawning and rearing periods.

2. To mitigate for wetland losses, up to 4,500 acre-feet of water (Lake Francis Case quality) will be provided to Owens Bay and Red Lake via turnouts and 365 acres of existing wetlands will be purchased and provided a controlled water supply. When practical, operational wastes will be used. In addition, a wetland easement will be acquired for 4 acres.

3. Approximately 2,185 acres will be purchased and seeded to native grasses. Canal and lateral rights-of-way would be seeded to native grasses. All seeded areas will be protected from grazing and other disturbances until the grasses have been established (generally 3 years). Habitat values on acquired tracts will be estimated using habitat evaluation procedures, and purchases will continue until lost habitat values are replaced.

4. Approximately 175 acres of land will be purchased in concert with grassland acres for the planting of woody vegetation.

5. To the extent possible, lands purchased for mitigation of grasslands and woodlands would be adjacent to existing Federal and State wildlife areas or existing wetlands to provide wildlife complexes. If lands in these areas cannot be purchased from willing sellers, other parcels will be sought, with a minimum size of 40 acres. These units would be managed by the U.S. Fish and Wildlife Service or South Dakota Department of Game, Fish and Parks.

6. The mitigation plan will be implemented concurrently with the constructio of the rest of the project.

7. Uneconomical land remnants retained in Federal ownership will be managed to offset grassland habitat losses.

Attachment

8. New project powerlines will be buried except for the 0.5-mile 115-kV line to the main pumping plant. Installation of powerlines will be in accordance with Suggested Practices for Raptor Protection in Powerlines, the State of the Art in 1981, Raptor Research Report No. 4, Raptor Research Foundation, Inc., 1981.

9. Water quality sampling and analysis of Choteau Creek and Lake Andes will continue for TDS, nutrient levels, dissolved oxygen, trace elements, and pesticides and herbicides. After construction, the cost of this program will be part of the project OM&R. A ring dike will be constructed to dilute project return flows into Choteau Creek to meet State water quality standards of 2,500 mg/l TDS. Water will also be added to Lake Andes to meet the State water quality standard.

10. Ring dike construction may require habitat mitigation. Upon final site selection a habitat evaluation team will be assembled and recommend appropriate mitigation measures. After the appropriate review the recommendations will be incorporated into the construction plan.

11. Known sites will be avoided where possible. If any cultural resource sites cannot be avoided, determinations of their significance/eligibility for the National Register of Historic Places will be made. If any sites are determined to be significant, appropropriate mitigation measures will be developed in consultation with the State Historic Preservation Officer and Advisory Council on Historic Preservation.

12. The South Dakota Department of Game, Fish and Parks will be consulted regarding appropriate measures to be taken during the spawning season during construction of the main pumping plant.

13. The project may require modification of 15 miles of existing drainageways. When these sites are identified, South Dakota Department of Game, Fish and Parks and U.S. Fish and Wildlife Service will be contacted and appropriate mitigation measures will be established.

14. Proposed 50-acre fish rearing pond is included as a project feature.

15. Topsoil will be stripped to a predetermined depth, stockpiled, protected from erosion and compaction, and replaced in all disturbed areas.

16. The following permits will be obtained.

1. Section 10 permit required by the River and Harbor Act
2. Sections 402 and 404 permits required by the Clean Water Act
3. Soil and water compatability permit from the State of South Dakota
4. Water right from the State of South Dakota

17. It is recognized that certain agricultural chemicals can pose hazards to wildlife and water supplies. As part of the Irrigation Management System, chemical types used on the project will be updated every 5 years and useage of less hazardous chemicals will be encouraged.

Senator **Bradley**. Mr. Goldhammer, I'm sorry we don't have more time. What I would like to do is have you and your colleagues visit with the staff immediately after the hearing to talk about the issues that you raised, if that is okay.

Mr. **Goldhammer**. We would be delighted.

Senator **Bradley**. You would be available?

Mr. **Goldhammer**. We would be delighted.

Senator **Bradley**. Mr. Cournoyer.

STATEMENT OF STEPHEN N. COURNOYER, JR., CHAIRMAN, YANKTON SIOUX TRIBE, MARTY, SD

Mr. **Cournoyer**. Thank you, Mr. Chairman. I am deeply honored to testify before you today on Senate bill 202, Lake Andes-Wagner and the Marty II project. My name is Stephen Cournoyer, Jr., chairman of the Yankton Sioux Tribe.

Due to the time constraints, I think I will just kind of touch upon a few things here rather than go into reading what I have prepared here for you.

Senator **Bradley**. I think that would be wise, and I appreciate it.

Mr. **Cournoyer**. I have prepared an economic development proposal that you have there before you. I have also come up with an alternative to the Marty II project, which the Bureau of Reclamation is not in support of at this time because of the selenium problem. And it goes into lengthy detail, or maybe not so lengthy, but explaining what we are proposing here.

But I guess what I would like to get into is we have been waiting on our reservation for many years for the Federal Government to live up to some of the promises that they made to us. In my proposal here, I have named the new proposal after one of the chiefs that was a peacemaker back in the 1800's and brought the Yankton Sioux people to the first reservation in 1851, which at that time was approximately 11 million acres.

In 1858 through another treaty with the Federal Government, our reservation was dropped down to a little over 400,000 acres, which at this time we have approximately 38,000 acres that is owned by tribal members and the Yankton Sioux Tribe. At this time we have approximately 6,200 enrolled members. Between 2,500 or 2,850 to 3,200 of those members who live within the reservation are in Charles Mix County at this time.

We have a number of problems on our reservation because of the high unemployment rate which is above 80 percent, and when you have that kind of a high unemployment rate, it creates a lot of other problems, you know, social problems. We have drug and alcohol abuse on the reservation which creates child neglect, abuse, including sexual abuse. And if we are unable to try to solve the problems, down the road, 10, 15 years down the road, the abused become the abusers. The problems just keep getting greater.

I see the Marty II alternative and the economic development proposal as a means of addressing those problems.

The main thing that we need to also include in there is that there have been many things that have been tried out here not only on our reservations, but several reservations throughout the Nation or probably most reservations throughout the country—is a lack of management once a program or anything is developed out there. You know, it often ends up with greater problems created after something has been started. A few years down the road, you end up with a business or whatever that has gone in the hole and the people out there are in worse shape than before we even started.

I think what we address within this proposal is those top management people and also an alternative to educating our people so that they can come back to the reservation and through training under top management, can sometime down the road fit into those positions. Or if they do not want to come back to the reservation, they can go out there and fit into the mainstream society somewhere out there in the country or wherever they feel they want to go.

As chairman of the Yankton Sioux Tribe, I fully support the Lake Andes-Wagner project. At one time the Yankton Sioux Tribe was opposed to it because they felt that there was some things that needed to be addressed and some changes that needed to be made. And I think those have been addressed over the years. And I think it is probably time for me to go back to the general council and ask for support, and that is what I will be doing in the next two weeks to two months.

I fully support it also because of the 1,700 acres that is in the project. And that will benefit tribal members as well as the tribe, because there's tribal members that have planned up in that area, and that is part of the 1,700 acres that is included in the Lake Andes-Wagner.

I guess I have pretty much covered the rest of the things that I wanted to go over here. So, due to time in my conclusion here, I would like to read the last paragraph.

Our past attempts to provide economic development opportunities on the reservation have met with dismal failure. We understand now that the reason for that failure is our own inability to properly manage the projects. We realize that we need time to learn how to do this, and at the same time require the very best in management expertise that is available today. Accordingly, the hallmark of this proposal is finding and hiring the very best managers possible for each of these projects. It is only through their expertise and their ability to teach our tribal members once they receive the necessary education, that we may be assured of perpetual economic prosperity and to provide members of the Yankton Sioux Tribe with the opportunity to seize that portion of the American dream which has so long eluded them economic prosperity.

As Chairman of the Yankton Sioux Tribe, I would like to thank the committee for this opportunity to address you today. Thank you.

[The prepared statement of Mr. Cournoyer follows:]

YANKTON SIOUX TRIBE
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Marty, So. Dak., 57361
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PREPARED STATEMENT OF

THE HONORABLE STEPHEN COURNOYER, JR.

CHAIRMAN OF THE YANKTON SIOUX TRIBE

Mr. Chairman, Members of the Subcommittee:

I am deeply honored to testify before you today on S. 202, the Lake Andes-Wagner/Marty II Project. I am Stephen H. Cournoyer, Jr., the Chairman of the Yankton Sioux Tribe. The Yankton Sioux Tribe has 6,200 enrolled citizens with 3,200 citizens living on our 400,000-acre reservation located in Charles Mix County in South Dakota. Today, the Yankton Sioux Tribe and its citizens own only 38,000 acres of our reservation where approximately 9.5% of our original land.

As the elected head of Tribal Government, my tasks are to mount an effective attack upon the myriad of severe problems facing our people. It is my hope that through the *"Struck-By-The-Ree"* Project, that we will be able to restore the pride of the Yankton Sioux, develop positive self-concepts in our children as well as our adults, provide for the future of the Yankton Sioux Tribe by educating its young people, consolidate landholdings, and strike a blow against the dependence upon welfare and public assistance which in some cases has now spanned three and even four generations of families.

To overcome these obstacles will take an immense amount of time, careful, strategic planning, outstanding management expertise, and, of course, the appropriate funding. I, and the people of the Yankton Sioux Tribe, looked forward to the Marty II Project as providing a path to prosperity and employment to alleviate our 80% unemployment level. Unfortunately, as the plans for the Project and feasibility studies were conducted, we discovered that there is a potential difficulty with selenium. We are fortunate that this problem was discovered when it was, for Indian people, as the original and continuing stewards of the land, care more about nature and the ecosystem than most others. While I am saddened that the Marty II Project appears that it will not come to fruition, it also presents an opportunity for us to create the economic opportunities and jobs necessary to lift the Yankton people from suffering for over a century in the depths of poverty and despair. While our economic problems cast a shadow of despair over our lands, such that many families have had to endure subsistence on welfare and public assistance for three and sadly and even four generations, I see a light that can drive away that specter -- a light which will give *hope* to the *hopeless*, -- a light which will give jobs to the jobless -- a light which will give education to the uneducated -- a light to allow the Yankton Sioux people to lift themselves from the depths of despair by developing existing agricultural resources in a carefully planned and executed manner and the *Struck-By-The-Ree Project*.

Former economic developments in Indian country failed in large part due to attempts to place them in areas which could not possibly survive as opposed to developing the economic potential which already existed, and also by the many mistakes of inexperienced management. Unfortunately, the Yankton Sioux Tribe has been no exception. In the past, many of our projects failed due to inexperienced management. This will not happen again.

The Polar Star which will guide our decisions under the businesses to be conducted under the *Struck-By-The-Ree Project* will be to locate and hire the best possible management for each business, regardless of where they may be found or the color of their skin. This management team will have a period of time to foster each business to the level of market maturity and to train Tribal citizens following their education, to ultimately take over the management responsibilities, but only after appropriate education is first obtained and the indelible experience and wisdom which can only be obtained from years of operation are achieved. We realize that we must crawl before we can walk and we must walk before we can run. We also realize that it is never a bad thing for people to admit that they are not the best at everything and may need help on occasion.

The *Struck-By-The-Ree Project* is a comprehensive economic development plan for the Yankton Sioux Tribe and its Reservation. Its benefits will accrue not only to my people, but also to the citizens of the surrounding communities and to the citizens of South Dakota. When implemented, the *Struck-By-The-Ree Project* will assure the continued vitality of our economy and the existence of our Tribe and its citizens into the next century and beyond.

Mr. Chairman, Members of the Committee, now that you know a little bit of the problems that I face -- the problems as elected leader I must solve, let me tell you a little bit about the *Struck-By-The-Ree Project* so you too may share my dreams for the Yankton Sioux people.

The *Struck-By-The-Ree Project* is named for our Chief who was a peacekeeper when the Yankton Sioux Tribe was placed on its initial reservation of 11-million acres in 1851. As the leader of the Yankton Sioux People at that time, he maintained a hope for his people which could now become reality. He passed from this life in 1888.

The *Struck-By-The-Ree Project* is composed of four primary parts as follows:

* The Yankton Sioux Farm Project;
* The Educational Trust;
* The Yankton Sioux Economic Development Projects; and
* Perpetual Economic Development and Operating Costs Revolving Loan Fund.

1. **YANKTON SIOUX FARM PROJECT**	**$ 9,225,000.00**
A. ***Expansion of the Yankton Sioux Farm Project:***	***$ 1,825,000.00***

The existing farm consists of 300 acres of irrigated alfalfa. Our goal is to expand the farm to 5,000 acres complete with irrigation equipment. The profits from the farm operation will serve to foster further expansion of the Tribal farm by taking over other leases of Tribal land from year-to-year. Our alfalfa operation will be expanded until it employs 10 full-time workers and the Tribal farm will employ 12 full-time workers when it reaches 5,000 acres and approximately 12 part-time workers in the summer.

B. *Purchase Fractional Interest from Indian landowners.* $ 4,750,000.00

Individually-owned allotments are broken down into so many fractional ownership interests that Tribal members sometimes joke that they can paper their walls of their homes with their share of the lease proceeds because the checks are so small. Many of these members have indicated an interest in selling their fractional shares to the Tribe to allow us to reconsolidate our landholdings.

C. *Purchase Equipment Necessary for Farm Farm Operations and Grain Storage.* $ 750,000.00

Along with the expansion of the farm, it will be necessary to purchase additional equipment for its operation and to erect the appropriate grain storage facilities.

D. *Purchase 500 Head Dairy Operation and 720 Acres of Crop Land as a Going Concern.* $ 1,900,000.00

One of the non-Indian dairy operators in the area has indicated an interest to sell his entire operation as a going concern to the Yankton Sioux Tribe. This is part parcel to our plans for expansion of the Tribal farm and diversification of agri-business interests.

2. **PERPETUAL EDUCATIONAL TRUST.** $ 5,000,000.00

The Yankton Sioux Tribe realizes that its future lies with its young people. In order to adequately prepare our younger generation for the serious challenges which will confront us in the future, it is necessary to assure that they have the appropriate education. We propose that an Educational Trust be established and managed by professionals and invested in conservative investments, such as obligations of the

United States Government, so that we may rely upon this Educational Trust for the future. We propose that its principal will never be invaded and that only interest will be expended for scholarship purposes. Scholarships will be given to Tribal members for college, graduate, and post-graduate instruction as well as vocational scholarships. Presently, the Yankton Sioux Tribe is only able to offer a total of $124,000.00 in scholarship assistance to over 200 applicants. This makes an average scholarship award of $620.00, far less than is necessary with today's high educational costs.

3. **YANKTON SIOUX ECONOMIC DEVELOPMENT PROJECTS. $ 8,375,000.00**

A. Renovate Existing Meat Processing Plant. $ 1,000,000.00

We presently have an existing processing plant which never was properly operated due to poor management of Yankton Sioux Industries, by non-tribal members. We intend to hire the absolute best qualified individuals or firms to management the plant and thus avoid this problem in the future.

B. Build New Butchering Facilities. $ 1,500,000.00

The Processing Plant will be expanded with additional facilities to assure that the plant can be operated on a economical basis. Once expanded, the kill plant will employ approximately 150 full-time workers.

C. Build Integrated Hog Confinement (Lean Pork). $ 1,500,000.00

To satisfy increasing consumer demand for lean meat products, we propose to build a 440 sow hog confinement operation for lean pork. This operation will employ 6 full-time workers.

D. *Build 2,000 Head Finish Feedlot for Lean Beef.* *$ 500,000.00*

This operation will employ 4 to 5 full-time workers as well as an additional 5 part-time workers. In all but one year over the last decade, properly managed feedlot operations have been profitable. Again, we will employ the best manager for the operation which we can find.

E. *Establish 500 Head Lean Beef Cow Herd.* *$ 375,000.00*

This is part of our plan for a vertically integrated livestock operation such that we will be able to control the entire process from the cow-calf operation to the final boxed beef product.

F. *Construct Alfalfa Cubing and Pelleting Processing Plant.* *$ 1,500,000.00*

Eventually, we hope to expand the cubing and pellet processing plant into a complete feed mill for the livestock operation as well as for sales to third parties. Presently, the Santee Sioux Tribe in Nebraska operates a alfalfa cubing and pelleting plant in an efficient and profitable manner.

G. *Expand Existing Wildlife Projects.* *$ 2,000.000.00*

1. *Hatch and raise game birds for release and sale.*
2. *Wild game processing plant.*
3. *Buffalo herd expansion.*

Our game bird operation, when expanded, should employ 6 full-time workers and the processing plant should employ 30 full-time workers. Presently, we have only five buffalo, and we want to expand this to approximately 100 for an additional tourist attraction as well as charging buffalo hunters for fall hunts to cull the herd. In addition, the American consumers' interest in lean meats makes lean, low-calorie buffalo meat a likely alternative to beef for more and more consumers.

4. PERPETUAL ECONOMIC DEVELOPMENT AND LOAN FUND. $ 5,000,000.00

All of the above businesses will require operating loans from time-to-time. Our concept is to have a perpetual operating and economic development loan fund which we manage by professional bankers and money managers who will only extend credit to our Tribal operations if the proposal makes good business sense and cash flows. The perpetual economic development fund managers will be entirely independent of the actual business managers to assure that there is no favoritism and that all loan requests are funded only if they make economic sense and credit criterion.

TOTAL PROJECTED COST OF ECONOMIC
DEVELOPMENT PROPOSAL: $ 27,600,000.00

* * * * * * * * * *

ALTERNATIVE TO MARTY II PROJECT

As an alternative to the Marty II Project which appears to be jeopardized due to the selenium problems, we request in exchange for this lost opportunity, that the appropriate funding be given to us to secure 3,000 acres of land, including all necessary irrigation equipment to fully irrigate the crop land.

We submit this request of a alternative proposed economic development as an alternative to the Marty II Project due to the selenium problems. Consideration of this alternative proposal is merited because the Yankton Sioux Tribe compromises in excess of one-third of the total population of Charles Mix County. If funded by your Committee, these economic development projects would reduce horrendous unemployment rate of 80% and provide hope to replace the despair that permeates a society which in its worst case, has three to four generations of public assistance and welfare families. This ray of hope that shines through a fog of economic despair, the light of the *Struck-By-The-Ree Project*, will serve to enhance Tribal members selfimage, provide training in the work ethic, satisfy the hunger for higher education and serve to make many other problems we face such as child abuse, alcohol and drug abuse and family disorientation a thing of the past.

CONCLUSION

Our past attempts to provide economic development opportunities on the reservation have met with dismal failure. We understand now that the reason for that failure is our own inability to properly manage the projects. We realize that we need time to learn how to do this and at the same time, require the very best in management expertise that is available today. Accordingly, the hallmark of this proposal is finding and hiring, the very best managers possible for each of these projects. It is only through their expertise and their ability to teach our Tribal members once they receive the necessary education, that we may be assured of perpetual economic prosperity and to provide members of the Yankton Sioux Tribe with the opportunity to seize that portion of the American dream which has so long eluded them economic prosperity.

Mr. Chairman, Members of the Committee, I would like to extend my sincere thanks for the opportunity to address you today.

Senator **Bradley**. Thank you very much, Mr. Cournoyer. I really appreciate your testimony and I am particularly grateful for your summarizing it. The full testimony will be in the record.

Now, Dr. David Campbell and Mr. Scott Parsley. The sand is quickly falling out of the hourglass. So, if you could possibly pretend you are on a modified television interview and you are going to speak very succinctly and make your points and try to do it in 5 minutes each.

STATEMENT OF DR. DAVID CAMPBELL, RESOURCES ECONOMIST, NATIONAL WILDLIFE FEDERATION

Dr. **Campbell**. Thank you, Mr. Chairman. I ask that our statement be submitted for the record. and I just wish to briefly highlight some of the comments.

The National Wildlife Federation does oppose this bill, S. 202. We have examined the record and find that Lake Andes-Wagner and Marty II irrigation project is neither economically justifiable nor environmentally acceptable. We also do not believe that it follows the Bureau of Reclamation's new mission that Mr. Hall chaired I believe.

On the economic benefits, we find they do not outweigh the costs. Mr. Hall was asked a question a minute ago about the planning report, and it contains two benefit estimations, one with Water Resources Council's guidelines and the other on a homemade process developed by the Bureau of Reclamation specifically for this project in an attempt to justify it. That methodology is not being approved by the Department of the Interior, nor the project has not been approved by the Department of the Interior.

If he were asked the question, do the benefits exceed the costs under the U.S. Water Resources Council's principles and guidelines, I believe that he may have a different answer for you.

The cost of $180 million amounts to $4,000 an acre. Irrigated land in South Dakota probably sells in the best circumstances at $1,000 an acre. Spending $4,000 to maybe increase the value of the land by about $5,000. It's a good estimate of the benefits.

The taxpayers will probably pay between 70 and 95 percent of the cost depending on how the agreement is negotiated.

I am glad to see that this committee at least will require the bureau to subscribe to a truth in cost sharing law in the future.

The project I also think is going to be a risky financial venture for participating farmers. As an agricultural economist, I would not recommend that a farmer participate in this project. I agree with the Governor that good farming is good for wildlife I wish that water played a dominant role in local economic development. Unfortunately, it doesn't.

I know that most farmers are optimists, but those in the Lake Andes-Wagner district should just stop and consider some of the risk of converting to irrigated farming. The on-farm irrigation facilities are going to cost you about $500 an acre or about $130,000 if you want to irrigate 260 acres. In addition to that, the Bureau's report estimates that you are going to have to pay another $117 a year for repayment of the Federal cost without interest and operating expenses for the next 40 years.

You might take a look at some of the literature about irrigation and discover that irrigated farms are larger than the average. These investments have to be made. Some farmers decide not to do it and sell out. So, the farms become larger. You have fewer farmers and you have more absentee landlords. The capital investment is just too high for many local farmers.

This one is only going to benefit 173 farmers right now. The Mid-Dakota project the Governor spoke about could benefit 20,000 people.

The farmers here are already skeptical of this project. They voted down a bond issue in the 1970's when crop prices were much higher than they are now. The farmers should take a look at this alternative benefit methodology that follows the Water Resources Council's guidelines.

Also, we believe that the on-farm damages and draining costs may be higher than anticipated by the bureau, and you might have to spend money on it sooner.

The on-farm effects from these are that the non-consumer irrigation water is going to raise the water table, encroach in the root zones of the crops. The sponsors recognize this and proposed to set up a sinking fund to construct the drainage facilities.

The on-farm effects could take place with the selenium that is mentioned, farm chemicals, salts and total dissolved solids. They threaten the groundwater in the area, Chotura Creek and Lake Andes itself.

The plan of the bureau is to build a project and irrigate the lands first, then monitor return flows. You have just heard testimony today on two projects, one in Texas and one in Kansas, that the Bureau didn't plan well enough and anticipate the effects. Overbuilt one, and salt in another.

In the San Luis unit in California, the law authorized required assurance, like this bill does, that drainage outlets would be built. The drains did not work as planned. Thousands and thousands of ducks are being killed. The Federal Government is now financing ongoing drainage studies I believe at $30 million a year or something and will likely be stuck with most of the costs of the solutions.

In light of the severe loss of the waterfowl at the Kesterson National Wildlife Refuge resulting from selenium drain water and similar problems at other irrigation projects, we found that the ex poste approach to water quality embodied in this bill is risky.

It has been mentioned about the surplus crop problem. We do not think this proposed language would resolve this basic policy contradiction. It may present some of the double dipping inherent in these two programs, but it will not solve the basic contradiction.

Lastly, the rationale that you have heard here for authorizing this uneconomic project is that the Federal Government has not fulfilled its commitments to construct several water resources projects as compensation for the loss of these valuable bottom lands flooded by four large Corps of Engineering dams on the Missouri River in South Dakota. Both the Corps of Engineers and the Fish and Wildlife Service dispute the amount of lands that were flooded, especially the fertile bottom crop lands.

The National Wildlife Federation a year and a half ago suggested the committee prepare an accounting of the Federal Water Resources Development debits and credits in South Dakota. Our examination indicates that South Dakota has received many credits frequently overlooked by the state.

Federal power subsidies are at least $30 million.

Eight million visitor days of recreation activity take place on those four reservoirs.

In this decade three non-Federal irrigation projects, the Belle Fourche, Grass Rope and Hilltop-Gray Goose, have been financially integrated in the Pick-Sloan program. They cost the Federal taxpayers $100 million.

The highly subsidized WEB rural water development project is under construction. And recently Congress authorized the Mni Wiconi rural water project—the National Wildlife Federation supported that—the fish and wildlife mitigation for the Oahe Dam, Gregory County pumped storage hydroelectric project, the Corps of Engineers irrigation facilities associated with that project and the James River flood control project.

Senator BRADLEY. Dr. Campbell, if you could wrap it up.

Dr. CAMPBELL. We think after the ledger has been closed on the Pick-Sloan account in the state and Federal resource water plans in South Dakota can be judged on their individual merit and not in this basis of repaying what is perceived—it is just never-ending—but unquantified political debt. It has to stop sometime.

[The prepared statement of Dr. Campbell follows:]

Working for the Nature of Tomorrow®
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Statement of

David C. Campbell Ph.D
Resources Economist

Regarding S. 202
Lake Andes-Wagner Unit,
Pick-Sloan Missouri Basin Program

before the

Subcommittee on Water and Power
of the
Committee on Energy and Natural Resources

United States Senate

September 14, 1989

I am pleased to be here this afternoon to present the views of the National Wildlife Federation on water resources plans, policies, and projects in South Dakota. The Federation is the nation's largest conservation organization with over 5.8 million members and supporters and 51 state affiliate organizations, including the South Dakota Wildlife Federation.

Several aspects of the proposed authorization of the Lake Andes-Wagner project raise national policy issues regarding the Bureau of Reclamation program: the amount and incidence of subsidies to irrigation projects; the lack of economic feasibility of Reclamation projects; the inconsistency with other farm programs; the relationship to Federal power allocation and pricing policies; and the environmental effects of water diversions and irrigation water drainage. This hearing also provides an opportunity for the committee to reexamine the successes and failures, and promises and performance of Federal water resources development in South Dakota in the context of contemporary budget restrictions, farm conditions, and environmental values.

. **The Lake Andes-Wagner Irrigation Project is neither economically justifiable nor environmentally acceptable.** The National Wildlife Federation is opposed to the enactment of S.202. The costs of construction, operation, and drainage are considerably greater than the economic benefits. Most of the costs would be borne by the Federal taxpayers. According to the planning report, a large portion of the water would be used to grow crops already in surplus. Moreover, irrigation runoff is likely to cause significant adverse environmental effects.

Some development may be considered in the context of final Pick-Sloan settlement, although a doubtful contender for limited funds.

Authorization of the proposed Lake Andes-Wagner Unit would be bad public policy.

The Bureau of Reclamation's Lake Andes-Wagner Unit would construct irrigation facilities in Charles Mix County, South Dakota to facilitate an increase in the production of corn, soybeans, potatoes, and feed grains. The project would provide supplemental water to 40,000 acres of existing farmland and 5,000 acres of lands not currently farmed. The principal features would be the main pumping plant at the existing Francis Case Reservoir on the Missouri River, six large relift pumping plants, five smaller relift pumping plants, and the main canal system. The local sponsors *promise* to install a drainage system in phases, as required, beginning after the sixth year of project operation. The project would be financially integrated with the Pick-Sloan Program, enabling the beneficiaries to obtain nearly free electric power to pump the water over 400 feet up from the Reservoir.

Economic benefits do not outweigh the costs.

The project will cost much more to build than the present value of all the increased income of the irrigators for the next 50 years. Using evaluation procedures prescribed by the U.S. Water Resources Council, the Bureau estimates capital costs will be over $140 million (1985 dollars) or over $3,000 per acre, as compared to estimated net present value of benefits of $85 million, or less than $2,000 per acre. Annual operating and maintenance costs will be over $1.6 million per year. The project would make water available to only 173 farmers, at a cost of over $900,000 per farmer. Between 70% and 95% of the cost would be subsidized by American taxpayers.

The Federation finds the Bureau has overestimated the benefits and that the proposal is a worse investment than shown in the planning report. To check the Bureau's estimates we evaluated the net benefits by projecting the increase in land values as a result of the project, an alternative procedure allowed by the Water Resources Council's Principles and Guidelines. Providing irrigation to these lands will increase their value from approximately $500 per acre to $1,000 per acre, an increase (benefit) of $500 per acre, as compared to the project cost of over $3,000 per acre. Thus, the nation will lose $2,500 per acre, or over $110 million, if it invests in this project.

The Department of the Interior has not approved the project, nor the methodology used to estimate the benefits. The Billings Regional Office of the Bureau of Reclamation presented two benefit/cost estimates in the planning report. Standard procedures could not justify the project, so "customized" procedures were developed to calculate crop prices higher than those issued by the U.S. Department of Agriculture. Using these optimistic prices, the Bureau estimated alternative benefits of $142 million, about equal to the costs. The land valuation method disproves this estimate also.

Federal financial assistance for the construction of the Lake Andes-Wagner is not the only subsidy involved for the project. The price of power used to pump irrigation water is the same as it was in 1950, 2.5 mills per kWh. Meanwhile, the taxpayers who would subsidize this power are paying an average of over 70 mills per kWh nationwide for their electricity. The landowners voted down a bond issue to build the project primarily because they would have had to pay commercial rates for the pumping power.

Environmental issues are unresolved.

The effects of irrigation return flows are uncertain and the remedies for the probable adverse effects are even more speculative. The South Dakota Department of Game, Fish, and Parks has commented that the proposed dilution of return flow water addresses only one aspect of potential water quality problems, and a solution to the accumulation of Total Dissolved Solids (TDS) in Lake Andes must be found.

The potential for non-consumed irrigation water to raise the water table and encroach on the root zones of the crops has been recognized by project sponsors, who propose to set up a sinking fund to construct drainage facilities when required, but not earlier than six years after the first water is delivered. If the drainage facilities are required earlier than anticipated, the sinking fund will not have accumulated enough funds to build the facilities. Either the farmers or Federal taxpayers will be faced with unforeseen charges.

The plan is to build the project and irrigate the lands first, then monitor the return flows. The law that authorized the San Luis Unit in California over 20 years ago also required assurance that drainage outlets would be built. The drains didn't work as planned. The Federal government is now financing ongoing drainage studies and will likely be stuck with most of the costs of the solutions. In light of the severe losses to waterfowl at the Kesterson National Wildlife Refuge in California resulting from selenium in drain water and similar problems at other irrigation projects, we find that the *ex-poste* approach to water quality embodied in this bill is risky.

The proposed mitigation for project-induced losses is clearly unsatisfactory. The loss of 650 acres of wetland would be offset partially by providing water to Owens Bay and Red Lake, and by purchasing 365 acres of existing wetlands. Only half of the the 4,290 acres of grassland lost from the project will be replaced.

The project is inconsistent with other Federal policies and programs.

A large percentage of the lands served by the project would be planted to crops that are currently classified as surplus and eligible for U.S. Department of Agriculture payments if the landowner enrolls in acreage reduction programs or the conservation reserve program. The proposed Lake Andes-Wagner Unit designed to increase agricultural production is inconsistent with the USDA programs designed to reduce production of many of the same crops.

The promoters of the project argue that the incremental production resulting from the provision of supplemental water to 40,000 acres of existing croplands is essential to the economic health of South Dakota. The amount of lands to be irrigated is insignificant --less than 1/4% of the 19.6 million acres of cropland in the state. In fact, 35 times that much land has been taken out of production by enrollment in the conservation reserve program as of last February. The USDA is paying enrolled farmers in South Dakota over $64 million dollars per year for not planting crops on eligible lands. An additional 150,000 to 400,000 acres in the state may be enrolled as a result of the 9th signup round held last month. Landowners in Charles Mix County, where the project would be built, enrolled 2518 acres in the 8th signup last February.

Section 2(e) of the bill proposes to reduce the impact of inconsistent Bureau and USDA programs by limiting the amount of farm subsidies to the crop acreage base and program payment yield established for the crop year prior to the delivery of project water. In other words, the USDA would not be permitted to make payments relating to the additional production resulting from irrigation. This may prevent individual farmers from "double dipping" from two subsidy programs, but it will not resolve the basic policy contradiction in the Lake Andes-Wagner Project--the investment of Federal funds to deliver subsidized irrigation water to boost production of crops that are frequently, if not chronically, in surplus.

Congress should take steps to close the Pick-Sloan ledger in South Dakota.

The rationale for authorizing this uneconomic project is that the Federal government has not fulfilled its commitments to construct several water resources projects as compensation for the loss of valuable bottomlands flooded by four large Corps of Engineers dams on the Missouri River in South Dakota. The Planning Report/Environmental Impact Statement for the Lake Andes-Wagner Unit and statements made on behalf of the project claim that South

Dakota lost 509,000 acres, including 138,000 acres of fertile bottom croplands (p. 4). These claims are exaggerated. Both the Corps of Engineers and the U.S. Fish and Wildlife Service state that 340,000 acres were inundated in South Dakota, of which only 39,000 acres were cropland (p. A-44). Moreover, the Federal government purchased and paid for these project lands.

The National Wildlife Federation repeats its previous suggestion that the Committee prepare an accounting of the Federal water resources development debits and credits in South Dakota. Our examination of the balance sheet indicates South Dakota has received many credits that are frequently overlooked by the State. In fact, the Pick-Sloan Program provides large benefits to residents of the state and will continue to do so.

South Dakota receives several substantial ongoing program benefits from the Pick-Sloan Missouri Basin Program.

- Federal power subsidies are worth over $30 million a year to the State. The Western Power Administration reports South Dakota customers pay ony $15 million for approximately 1.8 billion kilowatt hours (8 mills per kWh) of Pick-Sloan electric power. This amount of power is currently worth over $45 million at 25 mills per kWh, and $63 million at 35 mills per kWh.

- Over 8 million visitor days of recreation activity take place each year on the four Missouri River reservoirs in South Dakota. Some of the best walleye fishing in the nation is available on these reservoirs.

- Three non-Federal irrigation projects, Belle Fourche, Grass Rope, and Hilltop-Gray Goose have been financially integrated into the Pick-Sloan Program at a cost to the Federal taxpayers of over one hundred million dollars.

- The highly-subsidized WEB rural water development project is under construction.

- Congress has authorized
--the Mni Wiconi Rural Water Project,
--fish and wildlife mitigation for the Oahe Dam,
--the Gregory County Pumped Storage Hydroelectric Project (Corps of Engineers),

--irrigation facilities associated with the Gregory County Project (Bureau of Reclamation), and

--the James River Flood Control Project (Corps of Engineers).

The Pick-Sloan account in South Dakota should be closed.

There are few, if any, Federal water resources projects with net economic and environmental benefits remaining unbuilt in South Dakota. The Federation urges Congress to recognize this reality and close the books by taking the following actions.

- Deauthorize all unbuilt water resources projects in South Dakota authorized by the Flood Control Act of 1944, including the Oahe Unit.

- Deauthorize further study of the CENDAK Unit.

- Establish a Wetlands Trust similar to that established in North Dakota by the Garrison Diversion Reformulation Act.

- Clarify the terms of repayment for the WEB rural water supply project.

- Authorize the 154-mile segment of the James River in Brown and Spink Counties, previously included in the Nationwide Rivers Inventory, for study as a possible addition to the National Wild and Scenic Rivers system.

……

After the ledger has been closed on the Pick-Sloan account in the state, Federal water resources plans in South Dakota can be judged on their individual merits and not on the basis of repaying what is perceived as a never ending, but unquantified political debt.

Conditions for Possible Authorization

If Congress does decide to authorize an irrigation project to deliver water from the Francis Case Reservoir to lands in Charles Mix County as part of the closing of the Pick-Sloan account, it should impose conditions consistent with sound public policy, economic efficiency and equity, and environmental quality.

- Irrigators must pay full-cost [as defined by § 205(a)(3) of the Reclamation Reform Act, P.L. 97-293] for water delivered in years when irrigation return flows reduce the quality of surface and groundwater below standards set by the Environmental Protection Agency or by the authorizing act. This condition should encourage the irrigation district to ensure that excess return flows removed by the planned drainage system do not contaminate drinking water or fish and wildlife habitat as occured at the Kesterson Wildlife Refuge.

- A planned solution for the water quality effects of drainage acceptable to the Environmental Protection Agency, the U.S. Fish and Wildlife Service, the South Dakota Department of Game, Fish, and Parks, and the Yankton Sioux Tribe should be agreed to before construction begins.

- The construction costs for the Lake Andes-Wagner Unit allocated to irrigation (both those assigned for return by the water users and those assigned for return from power revenues of the Pick-Sloan Missouri Basin Program) shall be repayed for each unit in no more than 40 equal installments beginning with the year that water is first delivered to project lands.

Timely amortization of repayment is consistent with the recommendation of the Office of Inspector General for the Department of the Interior. The Office issued a report on July 19, 1989 highly critical of the current repayment policy for the costs of Bureau of Reclamation irrigation projects. The report found that the deferral of the payment of noninterest-bearing irrigation investment costs until after repayment of interest-bearing investments does not adequately protect the Government's interest. "A sound business approach requiring amortized repayment of the Pick-Sloan's noninterest-bearing irrigation assistance costs concurrent with repayment of the interest-bearing debt would allow the Government to accelerate cost recovery and collect additional revenues over the Pick-Sloan's repayment period. This approach would result in a present value gain to the U.S. Treasury of $133 million." Under current recovery practices, the Pick-Sloan irrigation assistance will not begin until the year 2036.

- Repayment for water delivered to grow crops declared in surplus by the Secretary of Agriculture under Title V of the Agricultural Act of 1949 and subsequent amendments thereto (7

U.S.C. 1461 et seq.) shall be the full-cost rate defined by § 203 (a)(3) of the Reclamation Reform Act (43 U.S.C. 390ee).

Full-cost pricing of water delivered to lands planted to surplus crops will encourage the planting of diversified crops. The State could encourage agri-businesses to process these crops.

- The ability to pay determination shall be calculated by the method used in the 1985 Planning Report and based on the benefits claimed for the project.

The Bureau of Reclamation determines the ability of irrigators to pay for water by adjusting the estimated benefits of the project for returns to farm investment and to family labor and management. (Reclamation Instructions 116.5) Thus, ability to pay is generally determined to be between 70% and 80% of the estimated increase in net farm income attributable to the increased water supply. The Bureau estimated the annual payment capacity for the Lake Andes-Wagner Unit to be $133.40 per acre, 73.7% of the estimated benefits. (Planning Report p. 62) An annual payment of $93.37 per acre plus $24.00 for operation and maintenance expense would repay the project and associated power investment, without interest, in 40 years. Nevertheless, the Bureau intends to reevaluate and renegotiate repayment capability 2 years after the project is built. The Federal government, should have a firm repayment contract agreed to and executed before any monies are spent on the project.

- Eliminate the proposed two-year repayment-free "development period."

- Repayment contracts must be accepted and signed before construction commences.

- The indexing of appropropriations authorized for the project, as may be reflected by engineering cost indexes, shall be applied only to the costs of remaining construction, not for the costs of completed portions.

- Mitigation should be on an acre-for-acre basis or on an equivalent habitat basis determined by the U.S. Fish and Wildlife Service's Habitat Evaluation Procedures (HEP).

Senator BRADLEY. Thank you very much for your testimony, and I will look forward to raising several questions with you.

Mr. Parsley.

STATEMENT OF SCOTT PARSLEY, STAFF ASSISTANT, EAST RIVER ELECTRIC POWER COOPERATIVE, INC., MADISON, SD

Mr. PARSLEY. Thank you, Mr. Chairman. We appreciate the opportunity to be here today and the opportunity to appear before this committee.

I have less than 30 seconds of testimony. So, with the chairman's permission, there are two gentlemen in the audience who have traveled a long way to show their support for this project and public power support, and I would like to introduce those two gentlemen. The first is Tom Graves. Tom is the executive director of Midwest Electric Consumer Association. And Matt O'Laughlin. Matt is the assistant general manager of Heartland Consumer Power District located in Madison, South Dakota. Thank you, Mr. Chairman.

In my remarks today, I would just like to say that East River Electric Power Cooperative wholeheartedly supports this project, and we support the stabilization of the water supply for the area to be served by the Lake Andes-Wagner/Marty II project so a solid, strong agricultural base can be developed and maintained well into the future.

We have cooperated with residents of Charles Mix County in the recent past to develop a processing plant for value-added agricultural processing and in the introduction of new varieties of crops to be raised in the area. We believe that this irrigation project is vital to make these new crops and the subsequent processing of these crops viable well into the future.

East River also supports the project being developed as a traditional Pick-Sloan project with the repayment of irrigation investments being made according to the formula which guarantees the government repayment of these projects beyond the irrigator's ability to repay.

East River pledges its continued cooperation as this project moves forward by helping develop the value-added agricultural potential and by encouraging other incentives to help the project to completion.

Therefore, Mr. Chairman, it is with a great deal of pleasure and enthusiasm that East River gives its full support to the authorization and subsequent funding of this project.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Parsley follows:]

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TESTIMONY SUBMITTED TO THE SUBCOMMITTEE

ON WATER AND POWER OF THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

BY EAST RIVER ELECTRIC POWER COOPERATIVE, INC., MADISON, SD

ON BEHALF OF LAKE ANDES-WAGNER/MARTY II PROJECT (S.202)

Mr. Chairman and Members of the Subcommittee,

My name is Scott Parsley and I am staff assistant for East River Electric Power Cooperative, Inc. (East River) headquartered in Madison, (Drawer E) South Dakota, 57042.

East River furnishes wholesale electric power to 26 rural and municipal electric distribution systems in the rural areas of eastern South Dakota and most of ten counties in western Minnesota. Included in the East River service area is the proposed Lake Andes-Wagner/Marty II Irrigation Project.

East River furnishes wholesale power supply to its member systems through a transmission network that consists of over 2500 miles of transmission lines and 200 substations. Approximately one half of the electric power supplied in the East River area is generated by the hydro-electric resources of Pick-Sloan Missouri River Basin Project. The balance of the power requirements are furnished by Basin Electric Power Cooperative, a bulk generation and transmission cooperative located in Bismarck, North Dakota. Basin Electric operates approximately 3,000 megawatts of coal-fired generation located in North and South Dakota and Wyoming. Currently, East River holds the largest contract for federal power in the Eastern Division of the Pick-Sloan Missouri River Basin marketing area of the Western Area Power Administration.

During the 99th and 100th Congress, East River provided strong support for the authorization of the Lake Andes-Wagner/Marty II Irrigation Project and we share the frustration and disappointment of the projects sponsers in being unable to complete the authorization of this legislation in both Congresses.

At this time we reiterate our strong support to this Subcommittee and to the 101st Congress for the authorization and subsequent funding of this modestly sized irrigation project located in south central South Dakota which is in a unique position to both stabilize and enhance the economic conditions in Charles Mix County, South Dakota.

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Because the project is located adjacent to Lake Francis Case on the Missouri River, there is ideal access to the water necessary to provide a stable source for agricultural production in this area which is subject to wide economic variations due to the unpredictable nature of rainfall. This irrigation project would provide a major improvement in agricultural production and economic conditions of this region of South Dakota. To validate the critical need for this project, we note that in June of 1989, Charles Mix County was declared a "drought" disaster county by South Dakota Governor, George Mickelson.

Specifically, East River recognizes this legislation is within the framework of the traditional development of the Pick-Sloan Missouri Basin Program. We support the extension of the traditional Federal repayment features of Pick-Sloan which will assure the Federal government of payment for all irrigation investment above the irrigators ability to pay. It will also provide for Federal 'pumping power' to this project.

We believe that the project sponsors have demonstrated a clear willingness to compromise on certain sensitive issues by directly addressing in their legislative proposal concerns relating to surplus crops by agreeing to base farm programs on the 'dryland' production index. The project sponsors are also aggressively pursuing the develoment of 'value-added' agricultural processing as an outgrowth of this project.

As example, East River and others in the project area have funded a feasibility study to examine the potential of development of alternative crops which could be produced if an assured water supply for irrigated agriculture becomes available. Results of that feasibility study point to positive potentials which would be materially enhanced provided the stability of irrigation can be introduced into this area.

East River, in cooperation with its member system which serves the project area, pledges its full cooperation to the project sponsors to assist in acquiring funding and development of incentives to continue this development of alternative crop production and processing.

Finally, it is our desire to join the project's sponsors in conveying to you our strong support for this project. We request this Subcommittee favorably recommend this legislation to the full Committee in a timely manner.

Senator **Bradley**. Thank you very much, Mr. Parsley, for your statement. Your full testimony will be included in the record, as with all the witnesses' testimony, plus any additions that they would like to make for the record.

Mr. Hall, let me ask you. Mr. Campbell raised the difference in the two approaches on the cost-benefit analysis on the Lake Andes-Wagner project. And there was a difference. One approach came back at a 0.61 benefit-cost ratio, and the second one came back at a 1.04 benefit. Is the difference, as Mr. Campbell has described it, because with the first you used the Water Resources Council guidelines and the second you made your own guidelines?

Mr. **Hall**. Mr. Chairman, Dr. Campbell is correct in a way and not correct in the other way. We have sometimes custom procedures that allow us to use customized crops. He is correct in saying that under the standard evaluation, it did come out to less than 1 to 1. I do not remember the figures. Perhaps you are right.

Senator **Bradley**. It's 0.61.

Mr. **Hall**. Where he is incorrect is that it was not a dreamed-up procedure without authorization. That was done ahead of time, evaluated through the department's respective assistant secretaries in the Department of the Interior and was an approved procedure.

Senator **Bradley**. Which was?

Mr. **Hall**. The one that resulted in a favorable benefit-cost ratio.

Senator **Bradley**. What were the differences?

Mr. **Hall**. Basically one of them allows us to use customized crops, potatoes in this case, and the way you figure the cost on them. On the one hand, it utilizes a 20-year average of constant prices rather than the latest 5 years as in the standard analysis.

Senator **Bradley**. Dr. Campbell, do you have any comment?

Dr. **Campbell**. I did spend some time at the U.S. Water Resource Council working on the problem of how to estimate prices that fluctuate violently in the marketplace. And there were a lot of committees that looked at this and universities and decided to use this 5-year lag as more representative of future prices than going back as far as 20 years where conditions would be quite different than they are today.

Senator **Bradley**. So, that's the major difference between the two?

Mr. **Hall**. Yes.

Senator **Bradley**. Are there other projects for which you have used the 20-year figure?

Mr. **Hall**. Yes. We have evaluated some, Mr. Chairman, and in every case they are preapproved that that is the evaluation process.

Senator **Bradley**. What does that mean?

Mr. **Hall**. That means that we went in to the department first and recommended the evaluation procedure for what looked like it was appropriate for that particular project and the best way to estimate the crop prices and so forth, and get that approved ahead of time.

Senator **Bradley**. Well, what is the standard? If the exception is 20 years, what is the standard?

Mr. **Hall**. It is the latest 5 years.

Senator **Bradley**. So, the standard is the latest 5 years, but from time to time you make assumptions on 20 years.

Mr. **Hall**. Yes, sir.

Senator **Bradley**. Let me ask you about the selenium question. That is the main reason that you advised not going ahead with Marty II?

Mr. **Hall**. Mr. Chairman, that is correct.

Senator **Bradley**. And are you doing a similar selenium study on Lake Andes generally?

Mr. **Hall**. Yes, we are, sir, using the most updated technology methods that we have.

Senator **Bradley**. And when will that study be completed?

Mr. **Hall**. I am advised that it will be at the end of this month. I realize this month is nearly over, and I asked that question today and it was reconfirmed that I would have those figures by the end of this month.

Senator **Bradley**. The end of this month?

Mr. **Hall**. Yes, sir.

Senator **Bradley**. Do you have any preliminary results that you can share with the subcommittee?

Mr. **Hall**. Mr. Chairman, I really wouldn't be comfortable today without having the results. I have not even seen them.

Senator **Bradley**. But I take it from your recommendation on Marty II, that if it did end up that there were a significant number of selenium hot spots, your recommendation would be the same as in the case of Marty II?

Mr. **Hall**. Mr. Chairman, that is correct. In any of these projects that we are evaluating, if we see significant concentrations of trace elements like selenium, then we are going to be hard-pressed to recommend that we go ahead with irrigation in those areas.

Senator **Bradley**. Mr. Stevenson, I take it you are opposed to the provision of the bill that tries to lay off some of the——

Mr. **Stevenson**. Yes, sir. It does make administration very difficult.

Senator **Bradley**. So, you would urge us not to try to reduce surplus crops?

Mr. **Stevenson**. It would encourage that you reduce surplus crops. But the administration——

Senator **Bradley**. Would you find this mechanism of doing that unacceptable to the Department of Agriculture?

Mr. **Stevenson**. We would like to propose something later, if we may, for the record, sir.

Senator **Bradley**. Do you have the suggestion now? The committee is open now to suggestions.

Mr. **Stevenson**. We really do not have, and I have sought in my own mind and just haven't anything I would care to offer.

Senator **Bradley**. Well, time is passing.

Under the most favorable cost-benefit analysis, what proportion of the project land would produce corn?

Mr. **Stevenson**. That we are not sure of either, sir.

Senator **Bradley**. Soybeans?

Mr. **Stevenson**. We would assume that if you irrigated, any of it would be applicable.

Senator **Bradley**. Are corn, soybeans and alfalfa subject to agricultural commodity programs?

Mr. **Stevenson**. No, sir. Only corn and wheat.

Senator **Bradley**. Pardon?

Mr. **Stevenson**. Corn and wheat would be.

Senator **Bradley**. Could anyone on the panel answer the question how much South Dakota land formally producing these three crops is in the conservation reserve program today?

[No response.]

Senator **Bradley**. Well, either we have the wrong witnesses or the witnesses are not prepared. Whatever. If anyone who is in the room has an answer to that question, I would like to have it for the record.

I would assume that the Department of Agriculture should have that information somewhere in that big building over there. Do you have it right there?

Mr. **Stevenson**. We just have some conservation reserve figures here, sir, but they are not really applicable to this either.

Senator **Bradley**. Well, see if you can provide those for the record, if you could.

[The information referred to was not provided by the Department of Agriculture.]

Senator **Bradley**. Now, the Bureau. The projected repayment capacity is $137 an acre per year. Right?

Mr. **Hall**. My recollection is $133, Mr. Chairman.

Senator **Bradley**. Okay, $133. Well, I will take your number, $133.

Mr. **Hall**. I was right.

Senator **Bradley**. Do you think that is high?

Mr. **Hall**. Do I think it is high?

Senator **Bradley**. Yes.

Mr. **Hall**. I think it sounds high, but you have to keep things equal, and if we used a customized evaluation process for benefits and costs using potatoes, you have to use potatoes in your repayment capability.

Senator **Bradley**. Well, I'm sure you are aware of this, but the Garrison Diversion Unit, which is not that far away, the projected repayment capacity is about $36 per acre. The Belle Fourche repayment capacity is $15 per acre. On the North Loop division in Nebraska, it is $27 per acre. The Central Valley of California is not exactly the same area, but in the San Luis project, arguably the most lucrative farmland in America, the repayment capacity there is only about $75 per acre.

So, how do you determine this $133? And how is it different from these other places where it is so dramatically different?

Mr. **Hall**. Mr. Chairman, all I can say is it is just based on the assumptions about the crops that will be grown there, the specialty crops and their financial repayment capability.

Senator **Bradley**. But all of the assumptions have to turn out to be correct. A quick perusal of comparable sites says that your assumptions might be a little optimistic. What happens if they prove to be incorrect?

Mr. **Hall**. If it proves to be incorrect, Mr. Chairman, and the project were to be built, it would work like a lot of other projects, and that is that the power assistance to irrigation would change. If, in fact, this project were built and it turned out the payment capability was $133 an acre, the project would pay out in 35 years.

Senator **Bradley**. What happens if it is more like $50 per acre?

Mr. **Hall**. Then the power assistance from irrigation increases and is paid more from power revenues because——

Senator **Bradley**. So, that means what? Rates go up?

Mr. **Hall**. It wouldn't necessarily dictate that that would cause a rate increase, but it would increase the power assistance to irrigation.

Senator **Bradley**. So, the revenues from the power production would have to increase.

Mr. **Hall**. That is correct.

Senator **Bradley**. And that might imply some increased rates.

Mr. **Hall**. Yes, it might. It sure might.

Senator **Bradley**. And the difference between $50 and $137—I know you cannot tell me how much the rates might increase, but at least that is something that the subcommittee should give careful thought to——

Mr. **Hall**. That is fair, Mr. Chairman.

Senator **Bradley** [continuing]. Because we would not want to over-estimate this figure, would we?

Mr. **Hall**. I think we want the most accurate evaluation that we can get. Both of us want that.

Senator **Bradley**. Yes.

Does anyone on the panel want to comment on this subject? Dr. Campbell?

Dr. **Campbell**. Under the present procedures and the power repayment study for the Pick-Sloan, that such assistance to irrigation would not begin until the year 2036. The taxpayer would be picking up the difference until then.

Senator **Bradley**. Please explain your point again.

Dr. **Campbell**. Under the present system of repaying highest interest first for Federal water projects, for Federal power projects, non-interest bearing debt such as for the Lake Andes project, that irrigation assistance—the power assistance to irrigators would not begin until the year 2036. This is one reason that the administration and the National Wildlife Federation have asked that that irrigation assistance begin immediately and be amortized over 40 years. That is not what would occur without specific legislation.

Senator **Bradley**. So, tell me once more. How does this relate to the issue of $133 per acre? State it clearly for the record.

Dr. **Campbell**. If the irrigators were unable to pay the $133, it's determined to be $50, that in economic terms it would mean that the taxpayers would swallow that $87.

Senator **Bradley**. And what does that have to do with your date?

Dr. **Campbell**. Because the power assistance would not begin immediately. Power users today would not be affected. Their rates would not be affected.

Senator **Bradley**. So, their rates would not be affected till 2030.

Dr. **Campbell**. Right. People alive today would not have their rates affected. It would only be the people who would purchase power after the year 2036.

Mr. **Hall**. Do you want me to see if I can help, Mr. Chairman?

Senator **Bradley**. Yes, please. I was going to ask whether you expect to be around then, Mr. Hall, at the Bureau still?

Mr. **Hall**. Yes, sir, Mr. Chairman.

What Dr. Campbell is alluding to, the normal process is to pay the highest bearing investments first. Because irrigation is interest-free, it is always paid last in our normal process of doing something.

Here is the tie between the two figures. If the repayment capability turned out to be $133, then it would be paid off in 36 years, and there would be no power assistance to irrigation required.

If, in fact, it were $50, there would be some level of power assistance to irrigation, and he is arguing—that is the same point that the administration makes—that that should be paid—whatever power assistance is there should be on a straight line amortization, paid over 40 years.

Senator **Bradley**. Let me ask Mr. Parsley. Do you believe that project sponsor's forecast that no power revenues will be required to cover the reimbursable cost is correct?

Mr. **Parsley**. Mr. Chairman, based on the information that was provided, we do not dispute that number.

I would, however, comment that Dr. Campbell's statement of no rate impact immediately should the number be less may not be a true statement. It is not necessarily a false statement either. The Western Area Power Administration on an annual basis looks at their debt requirement that they have over the period of time of the outstanding obligation and refigures the rate based on that outstanding debt. So, I do not know if it would alter the rate or not. It would depend on that calculation.

Senator **Bradley**. This is a good ping-pong match. So, that you are saying that it might affect the rates——

Mr. **Parsley**. It could.

Senator **Bradley** [continuing]. Because WAPA could learn that the repayment capacity is much lower than forecast and they will accordingly know that in 30 years, they have a large debt to repay, and therefore WAPA will figure that into their rates in advance.

Mr. **Parsley**. Correct.

Senator **Bradley**. All right. And that decision would be made by WAPA?

Mr. **Parsley**. Yes, that's a function of the Western Area Power Administration.

Senator **Bradley**. Let me ask Dr. Campbell and Mr. Parsley and Mr. Cournoyer. What do you think is South Dakota's most pressing contemporary water resource development need? You are first, Mr. Parsley.

Mr. **Parsley**. Thank you, Mr. Chairman. [Laughter.]

There is no doubt that South Dakota has probably two pressing needs. One is we are in the third year of a drought this year, so we have a very pressing need for a stabilized water supply for agricultural production because that is our number one industry in the State of South Dakota.

We also have a very major health care problem in the State. So, we have a very dire need for good, clean, safe drinking water for the people of the State of the South Dakota.

To choose between those two would be to ask which one of my two children I would like to give up, and I wouldn't like to have to make that decision. It is a very difficult thing to decide. I would say they both have equal importance.

Senator BRADLEY. Dr. Campbell.

Dr. CAMPBELL. In the environmental area, there is a large amount of unmet mitigation for the four major reservoirs that were built along the mainstream of the Missouri. We will probably be supporting the Lake Thompson project too.

Senator BRADLEY. Mr. Cournoyer.

Mr. COURNOYER. Well, I think that the needs are domestic use, drinking water, as well as development of our natural resources, and the farming industry, too. 35 years from now, if we do not develop something out there that relates to agriculture and irrigation, there will not be that many people around. And the people that are there, because of the high unemployment and the problems that we have now, what kind of people are we going to have? I think that we need both because that is all we have, the water. And if we do not develop it or if we are not given the chance to develop that, it is going to mean greater problems down the road.

Senator BRADLEY. I appreciate all the panelists' answers to the questions.

Let me just clarify one thing for the record. What is the number on—what is it? Surplus crops? The 33-percent figure given by Mr. Goldhammer. The Bureau's figure is 15 percent in its planning report for non-surplus crops. Is non-surplus crops 15 or 33? Mr. Goldhammer said 33, and the Bureau said 15. This ought to be a simple matter.

Yes. You have been introduced. State your name and you can make the comment.

Mr. HOLZBAUER. Mr. Chairman, I am Leo Holzbauer and the chairman of Lake Andes-Wagner and very actively involved in the farming process.

Senator BRADLEY. What is the number?

Mr. HOLZBAUER. This 33 percent is highly possible. That is what we are doing right out now with the alfalfa, soybeans, and the potatoes and things that we are growing right now. It is highly likely if not even higher.

Senator BRADLEY. So, that is what you think is possible?

Mr. HOLZBAUER. That or more.

Senator BRADLEY. But right now the Bureau's number is 15 percent?

Mr. HALL. Mr. Chairman, at the time of the analysis, that was an assumption that we made.

Senator BRADLEY. Okay.

Mr. HALL. I do not know if I could argue with Leo. He is a real farmer out there.

Senator BRADLEY. Right. It's a wise thing, Mr. Hall. [Laughter.]

So, let me say that I found the hearing very interesting and very informative.

Does anyone on the panel have any parting comment that they would like to make for the committee's consideration?

Mr. GOLDHAMMER. I just want to say thank you and we will just do anything we can working with the committee to try and get this Senate bill 202 prepared for markup.

Senator BRADLEY. Let me thank all of you very much.

I think we have to look at this project alongside the Mid-Dakota project. I think that environmental and wetland restoration and enhancement are enormously important. I think the whole surplus crop issue is important. We have to get a clear sense of our numbers. I appreciate your aid today in helping us focus on this issue.

As you can tell from the hearing, your section of the hearing took an hour to an hour and a half, and the other bills together took an hour and a half. This only means that either you are more important or more controversial. I'd guess the truth is probably a little bit of both. There is a desire on the part of the subcommittee to work with all parties to see if we cannot get an acceptable solution here, although we are far from being sure that we are going to get that at this time.

Before I break up the meeting, I'd like to raise another subject, Mr. Hall. Do you off the top of your head know, switching over west a few States to Utah, how much the Strawberry Water Users are owed for the loss of their contractual rights?

Mr. HALL. Mr. Chairman, I do not have those figures with me, and my recollection is not good enough to tell you how much they owed.

Senator BRADLEY. Would you provide those for the record?

Mr. HALL. Yes, I would, Mr. Chairman.

Senator BRADLEY. Along with all the other things?

Mr. HALL. Yes, sir, I would.

[The information referred to was not provided by the Bureau of Reclamation.]

Senator BRADLEY. And you know the way we are going to proceed? You come with a little card with the answers to basic questions about the projects.

Mr. HALL. I will come with several of them, Mr. Chairman.

Senator BRADLEY. Let me remind the subcommittee and its staff and members about the way we are going to proceed in the subcommittee generally. This is by way of reiteration and emphasis. If a bill has not had a hearing in this subcommittee and been acted on by the full committee, there is not a chance that it will be considered by the whole Senate. This point is not for any of our witnesses in this room, but for the members and staffs and those who actually read this record.

I want to thank you all very much for the hearing. It was a very full hearing. We will look forward to hearing not only from the Bureau, but from the Department of Agriculture. And the same thing I said to the Bureau applies to the Department of Agriculture in future testimony.

Senator BRADLEY. Thank you all very much.

[Whereupon, at 4:52 p.m., the hearing was adjourned.]

APPENDIX

Additional Material Submitted for the Record

EAST RIVER
ELECTRIC POWER COOPERATIVE
121 Southeast First St. Post Office Drawer E
Madison, SD 57042 Telephone (605) 256-4536

1989 OCT 4 AM

September 25, 1989

The Honorable Bill Bradley, Chairman
Water and Power Subcommittee
Senate Energy and Natural Resources Committee
731 Hart Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

At the hearing on the Lake Andes-Wagner unit held before your Subcommittee on September 14, the question was raised regarding the possible impact on Pick-Sloan Missouri Basin Program hydro power rates if 'power' assistance to irrigation is required for the proposed Lake Andes-Wagner unit. In response to that question, I answered that the rates may or may not be affected and that that question can only be answered by the Western Area Power Administration which has the responsibility of determining the Pick-Sloan hydro rate in conformance with Congressionally approved principles which includes repayment of power and suballocated irrigation features.

For the record I would also point to information available in the 1988 Annual Report of the Western Area Power Administration which shows repayment of project features by Pick-Sloan preference customers of $903 million. This amounts to approximately 40 percent repayment of the total reimbursable project investment. We feel this is a major accomplishment by the preference power users and shows the good faith by which they have continued to repay the federal government in accordance with Congressionally established and cost-based repayment principles of project features relating to the Pick-Sloan Missouri Basin project.

We request this information be included in the hearing record. The power users reiterate our support for the Lake Andes-Wagner Project. We support this project as a means to provide much needed stability to the agricultural production in Charles Mix County. Stability which agricultural processing firms interested in locating in Charles Mix County require. This coupled with the development of this project as a traditional Pick-Sloan irrigation project will provide stability and security well into the future for Charles Mix County.

Sincerely,

Scott Parsley

Scott Parsley
Staff Assistant

SP/jmc

cc: Senator Tom Daschle
Senator Larry Pressler
Congressman Tim Johnson
Lake Andes-Wagner/Marty II Project

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NATIONAL WILDLIFE FEDERATION
1400 Sixteenth Street N.W., Washington, D.C. 20036-2266 (202) 797-6800

September 15, 1989

The Honorable Bill Bradley, Chairman
Subcommittee on Water and Power
Committee on Energy and Natural Resources
United States Senate
Washington DC 20510

Dear Mr. Chairman:

Please include this letter and excerpts from a Department of the Interior's Office of Inspector General Audit Report as part of the hearing record on S. 202, the Lake Andes-Wagner Unit.

At the September 14th hearing, Mr. Scott Parsley, of the East River Electric Power Corporation, stated that the Western Area Power Administration (Western) may, or is likely to, raise its electric power rates if power assistance to irrigation repayment is required for the proposed Lake Andes-Wagner Unit. The Inspector General's Audit Report found, however, that power rates do not reflect power assistance to irrigation. Audit Report 89-84, July 1989, "Review of the Timely Recovery of Irrigation Investment Costs, Pick-Sloan Missouri Basin Program, Great Plains Region, Bureau of Reclamation" stated, "Western provided a 1987 repayment study which called for the repayment of the Pick-Sloan irrigation assistance to start in the year 2036 after repayment of the power facilities." (p. 4) The implications of the current repayment policy for the proposed Lake Andes-Wagner Unit is that the repayment of irrigation costs in exess of farmers' "ability to pay" will be deferred for some 50 years, without interest. To the extent that the Bureau subsequently reduces the "ability to pay" determination, more costs would be shifted from the irrigators' zero-interest annual amortization to the power customers' zero-interest deferred payment. Power rates would not be raised in our lifetimes. Western's power customers readily support irrigation projects because the present value of their long-delayed interest-free assistance to irrigators is very close to zero.

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In response to your question about the unusually high repayment capacity of the Lake Andes-Wagner Unit, Deputy Commissioner Hall disclosed that the customized procedures used to develop high benefit estimates also developed the high ability-to-pay estimates. The Administration's declaration that the power assistance to irrigation be amortized over 40 years beginning when the project is completed and Western's customers' strong opposition to this condition demonstrate a complete lack of faith in the Bureau's economic analysis of the proposed project.

Sincerely,

David Campbell

David C. Campbell, Economist
Water Resources Program

Enclosure

PRIOR AUDIT COVERAGE

The Office of Inspector General has issued two reports: "Review of the Timely Recovery of Irrigation Investment Costs - Central Arizona Project, Bureau of Reclamation" (Report No. 89-03) on October 4, 1988, and "Review of the Timely Recovery of Irrigation Investment Costs - Colorado River Storage Project, Bureau of Reclamation" (Report No. 89-67) on April 25, 1989. A synopsis of these reports is included as Appendix 2.

The U.S. General Accounting Office issued the following reports which provided irrigation assistance information on the legal requirements for recovery from power sales revenues, individual project amounts to be recovered, and alternative recovery methods:

- "Recovering a Portion of Federal Irrigation Project Construction Costs Through Revenues From Department of Energy Electric Power Sales" (GAO/RCED-85-128), dated July 26, 1985.

- "Additional Information Concerning Irrigation Project Costs and Pricing Federal Power" (GAO/RCED-86-18FS), dated October 10, 1985.

- "Pricing Alternatives for Power Marketed by the Department of Energy" (GAO/RCED-86-186BR), dated September 30, 1986.

The General Accounting Office reported the benefits of amortizing as an alternative approach; however, in performing its evaluation, the General Accounting Office did not measure the impact on the repayment of the power investment.

RESULTS OF AUDIT

The present method of recovering the irrigation assistance portion of the Pick-Sloan Missouri Basin Program results in substantially limiting revenues to the U.S. Treasury. This method, which allows the Western Area Power Administration to recover the interest-free irrigation debt after repayment of all other interest-bearing debts, is part of a long-standing water project repayment policy. Our review disclosed that amortizing the irrigation assistance for existing facilities and facilities under construction, thereby requiring concurrent repayment of both the interest- and noninterest-bearing debts, would substantially increase Pick-Sloan revenue collections over the repayment period. The net present value gained from this amortization is $133 million (see Appendix 3).

The specific Pick-Sloan repayment principles used by the Bureau and Western are contained in the Bureau's 1963 Report to the Congressional Committees on Interior and Insular Affairs, "Report on Financial Position, Missouri River Basin Project," which provides that:

> Costs of each unit, division, or separable feature thereof allocated to commercial power would be repaid within 50 years from the date when the unit, division, or separable feature became revenue producing.

> Costs relating to specific irrigation units...constructed or under construction on June 30, 1964, would be returned within the earliest practicable time period after completion of repayment of interest-bearing commercial power investment. These costs would be fully repaid with net power revenues before any such revenues would be made available for return of costs relating to irrigation units to be placed under construction subsequent to June 30, 1964 [referred to as existing units].
>
> Costs relating to future specific irrigation units, divisions, or irrigation blocks...would be returned within 50 years, plus allowable development period, after an individual unit, division, or irrigation block becomes benefit-producing. Permissible development period would be 10 years as provided by Reclamation law.

The Pick-Sloan Authorizing Act did not establish a method for repaying irrigation assistance. However, prior to authorization of the Garrison Diversion Unit in 1965, a report of the U.S. House of Representatives referring to the Bureau's 1963 Report included the comment: "A 'sound financial position' was interpreted to mean that commercial power and municipal and industrial water investments would be repaid with interest in not to exceed 50 years and that irrigation investments would be repaid within 50 years plus any authorized development period, including that portion to be repaid from power revenues."[1] As written, the House Report did not specifically adopt the principle of repaying interest-bearing debts first.

The policy of repaying the highest interest-bearing debts first was developed by the Bureau of Reclamation and Federal power marketing administrations to provide for recovery of all investment costs within authorized repayment periods while minimizing power rates to the extent possible. However, the deferral of interest-free irrigation assistance payments also minimizes revenues to the U.S. Treasury.

To facilitate our analyses of the impact of amortizing the irrigation assistance, we asked the Western Area Power Administration to provide us a copy of its power repayment study and prepare an alternative repayment study amortizing the $715 million of irrigation assistance attributed to existing facilities and facilities under construction. Current repayment assumptions for the irrigation assistance attributed to deferred and future units remained unchanged. Western provided a 1987 repayment study which called for the repayment of the Pick-Sloan irrigation assistance to start in the year 2036[2] after repayment of the power facilities. The

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[1] H.R. Rept. No. 282, 89th Cong., 1st Sess. 8 (1965).

[2] Western anticipates repayment of the Riverton Unit's irrigation assistance ($45 million) in 2019 and 2020, the last 2 years of that unit's repayment period.

SENATE SUBCOMMITTEE ON WATER & POWER

IN REFERENCE TO THE LAKE ANDES-WAGNER/MARTY II PROJECT HEARING

SUBMITTED BY CHUCK EITEMILLER

SEPTEMBER 14, 1989

My name is Chuck Eitemiller. I am a member of the Board of Directors of both the Lake Andes-Wagner Water Systems, Inc. and the Lake Andes-Wagner Irrigation District. My wife and two of our four children farm and raise cattle nine miles north of Wagner. Our family was born and raised in the Wagner area. None of us want to degrade our environment in any form. My family likes to hunt and fish, as do many people in urban areas.

Our community is livestock oriented. Almost everything produced here is used for our livestock. With the specialty crops grown this would not change dramatically, when the project was built.

There are many reasons to build the Lake Andes-Wagner irrigation project, Manufacturers, Engineers, Electricians, Contractors, Local Business, and laborers will all share in this.

I urge this committee to move Lake Andes-Wagner Irrigation project forward for authorization.

SENATE SUBCOMMITTEE ON WATER & POWER
IN REFERENCE TO THE LAKE ANDES-WAGNER/MARTY II PROJECTS HEARING
SUBMITTED BY MARK WIECHMANN
SEPTEMBER 14, 1989

I want to thank Senator Bill Bradley and the committee for having this hearing on S. 202. Please make this a part of the record in my absence.

My name is Mark Wiechmann, my wife and I own and operate a farm in the proposed Lake Andes-Wagner Project area. I am a member of the Board of Directors of the Lakes Andes-Wagner Water System, Inc.

As operator of a family-size farm I want to state my enthusiastic support of this irrigation project. It is my belief that completion of this project would be of great help in making our farms and towns viable and contribute to the nation's economy.

I urge the passage of S. 202 as soon as possible.

STATEMENT OF

PATRICIA CERNY

ON BEHALF OF THE SOUTHERN MISSOURI WATER DEVELOPMENT DISTRICT
BOARD OF DIRECTORS

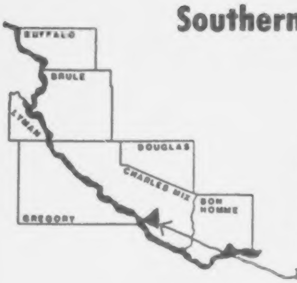
TO THE

SUBCOMMITTEE ON WATER & POWER CONSIDERING S. 202

UNITED STATES SENATE

SEPTEMBER 14, 1989

THE HONORABLE BILL BRADLEY, CHAIRMAN



Project Area

Southern Missouri Water Development District

BOARD OF DIRECTORS:
RALPH REIMER, CHAIRMAN
PATRICIA CERNY, VICE-CHAIRMAN
CATHERINE WERNKE, SECRETARY
REX WINTER, TREASURER
GEORGE HERROLD
BOB SLADE
WM. L. SOULEK
MANAGER: LYLE LABEREE
CLERK: NANCY BARRICK

P.O. BOX 43
DOUGLAS COUNTY COURTHOUSE
ARMOUR, SOUTH DAKOTA 57313

(605) 724-2624

The Southern Missouri Water Development District supports the Lake Andes Wagner/Marty II project as proposed by S. 202, and requests it be authorized.

The Southern Missouri Water Development District is a political subdivision of government. The Districts were created by the South Dakota Legislature to function as a localized body of government to assist the people to promote, conserve, develop and manage our water resources. Our Legislative charge is to "promote the conservation, development, and proper management of water resources according to district priorities through technical, organizational and financial assistance to prospective and existing project sponsors..." The Board of Directors of each district is elected by the voters, and we are governed by State statutes.

The counties contained in the Southern Missouri Water Development District are shown on the letterhead, and we have marked the location of the Lake Andes Wagner/Marty II Project so that you can see the project site in relationship to the surrounding area.

I live in Gregory County, and the farmers and ranchers in my area are very supportive of the project. In 1978 and 1979, hundreds of head of cattle in Gregory County were sold or wintered in Nebraska, on irrigated land, because of drought conditions. We are in a worse drought condition today. You cannot make money if you need to pay transportation costs moving cattle to another area and also paying for rent of the land to pasture. You also cannot afford to take the loss of selling down your cattle numbers as you lose your base herd and good breeding stock. The selling market is also glutted with all of your neighbors stock and prices are much less than normal.

My husband and I farm. Two years ago we lost our corn crop, last year we lost our oats crop. This year we had everything in alfalfa except for a small field of oats. The oats was a complete loss. On the first cutting of alfalfa, we got about one third of the normal amount; on the second cutting we got about one forth of the normal amount; and we will not get the usual third cutting this year. Even if alfalfa sells for twice the usual price, we will take a loss because we have much less than one half the normal amount of alfalfa available. Our pasture land has also suffered. We have excellent pasture land, and never need to take the herd off during grazing season. The herd has been removed twice this year so that the damage to the grass will not be permanent. The cattle raisers in my county need an assured supply of corn, oats and alfalfa close enough that we can afford the transportation costs in order to maintain herd count. We need this project.

We do not understand the furor over what some term 'surplus' crops. In South Dakota, we have crop loss somewhere in the state every year. There is never a 'surplus' in our state where we are concerned. Our major problem is transportation costs because the supply is never where the demand is located. We have lost so many farmers and small town residents that we have lost our railroads and are totally dependent upon truck transportation. We have lost many farmers/ranchers these past few years, and this drought will bring more farm auctions this fall and next spring.

We have suffered greatly in the past years from farm prices, and our population is dwindling. The hurt suffered by the small towns is tremendous because of the lack of steady trade and the migration of our youth away from the area.

We see millions of dollars going to assist the cities for crime prevention, metro systems, parks, assistance to the needy, low-cost housing, and we realize that a percentage of those dollars are going to help those very people who have been forced from the farms/ranches and small towns because we have not received the same financial consideration given to the growing masses in the cities. We are the ones feeding the nation, and our numbers are growing smaller. Do we really wish to face a food cartel in the future when all the land is held by a very few? Have we not learned our lesson via the oil cartels?

America was founded as a nation where emphasis was given to freedoms and liberty. Our people do not wish to leave the farms/ranches and small communities where we can sleep at night with unlocked doors. When we leave our small towns, we have lost many of the freedoms we enjoy. When the food producing land belongs to a few, we will have lost the liberty of food priced for everyone.

We in the Southern Missouri Water Development District and surrounding areas do not feel we are asking for a federal hand-out with this project. We feel we are asking for some repayment for the lands taken from our citizens and removed from our tax rolls when the mainstem dams were built. We still believe in the theme of our founding fathers, that when our neighbors prosper we all share in the good fortune.

Most of the members of the Southern Missouri Board of Directors live outside of the boundaries of the project, and will not receive irrigation water. But we know that benefits available to us and to the people we represent will be most beneficial. We strongly support this project, and desire its construction.

The Southern Missouri Water Development District Board of Directors commends the project sponsors on the excellent work they have accomplished to bring this project before the Committee. We thank Chairman Bill Bradley and his Committee for allowing us to present our testimony. We are confident of a speedy markup and passage of S. 202.

Patricia

SENATE SUBCOMMITTEE ON WATER & POWER
IN REFERENCE TO THE LAKE ANDES WAGNER/ MARTY II PROJECTS HEARING
SUBMITTED BY ERNIE BURES, JR.
SEPTEMBER 14, 1989

I want to thank Senator Bill Bradley and the committee for having this hearing on S. 202. Please make this a part of the record in my absence.

To the members of the Senate Subcommittee of Water and Power. My name is Ernie R. Bures, Jr., board member of Lake Andes Wagner Water Systems, Inc., a farmer in the local area as well as a lifelong resident of Charles Mix County in the Lake Andes area.

I have farmed for fifteen years and as a young farmer starting out I had an optimistic outlook for the future of my family operation with good management and a lot of hard work I figured the future success of the operation was not a major concern.

As the years have gone by, I see the farmer who is still operating with an old style rotation and a crop plan just will not survive without government support or subsidy. This is why I support the proposed Lake Andes Wagner irrigation project to offer local farmers an option to enter into another area of farming which would include specialty crops which are non-traditional and not subsidized. This would give farmers more flexibility in farming and really give a boost to the local economy in industry and jobs.

page 2 Ernie Bures testimony

I know that irrigation is not the total answer to an ailing farm economy, but it is a beginning and will provide some hope for future generations of farmers in an area where dependable rainfall is not likely.

Gentlemen of the Subcommittee, the above reasons are why I ask you to vote favorably on the Lake Andes Wagner Marty II legislation to be authorized for construction.

STATEMENT OF

LOUIE T. ARCHAMBEAU

ON BEHALF OF THE YANKTON SIOUX TRIBE

TO THE

SUBCOMMITTEE ON WATER & POWER CONSIDERING S. 202

UNITED STATES SENATE

SEPTEMBER 14, 1989

THE HONORABLE BILL BRADLEY, CHAIRMAN

YANKTON SIOUX TRIBE
Box 248
Marty, So. Dak., 57361
384-3804 / 384-5687

FOR FIVE (5) GENERATIONS OUR PEOPLE HAVE STOOD TALL AND FELL SHORT OF THEIR EXPECTATIONS FOR A BETTER STANDARD OF LIFE. THE FREEDOM OF THE BUFFALO IS GONE, WE REALIZE THAT, BUT OUR SPIRIT STILL SOARS HIGH AS THE EAGLE TO THE FUTURE OF THE PRESENT AND COMING GENERATIONS.

OUR UNEMPLOYMENT LEVEL HOLDS AT 81% WHICH MOST PEOPLE IN WHITE SOCIETY CAN'T EVEN CONCEIVE. OUR CHILDREN ARE DYING A SLOW DEATH BECAUSE OF ALCOHOLISM, DRUGS, PHYSICAL AND SEXUAL ABUSE. BABIES CRY FROM ALCOHOL INFLUENCED PARENT THAT EFFECTS 75% OF OUR FAMILIES. THE OLD WAY WILL NEVER FULLY RETURN BUT THE FUTURE IS IN THE HANDS OF THE WAKAN TANKA, THE HOLY SPIRIT, FOR BOTH OUR PEOPLE TO WORK TOGETHER FOR THE BETTERMENT OF OUR CHILDREN AND FUTURE GENERATIONS

WE ARE A PROUD PEOPLE THAT HAVE STOOD FOR DECADES ON TREATIES AND PROGRAMS THAT HAVE ONLY EFFECTED OUR RESERVATION FOR A SHORT TERM, RESULTS LEAVING UNEMPLOYMENT BEHIND WITH LITTLE HOPE FOR LONG TERM RESULTS. I FEEL THAT THIS PROPOSAL GIVES MY PEOPLE LONG TERM HOPE WITH UNEMPLOYMENT BEING REPLACED BY JOB SECURITY FOR OUR PEOPLE AND THEIR CHILDREN.

IT WILL TAKE UNITY BETWEEN BOTH OUR CULTURES TO ESTABLISH A SOLID FOUNDATION FOR PRODUCTIVITY WITH CAPABLE LEADERSHIP WHO CAN TRAIN US FOR THE FUTURE SUCCESSES.

Officers:
Stephen Cournoyer, Jr.
Al Zephier
George Cournoyer
Michael Red Lightning

Business & Claims Committee YST

John Packard
Wesley Hare, Jr.
Guy Cooke
Daniel Archambea
Louie Archambeal

THE NAME OF THIS PROPOSAL"STRUCK BY THE REE" OR "STRIKE" DEFINES OUR GREAT LEADERS COMMITMENTS A HUNDRED YEARS AGO TO LIVE AND WORK IN PEACE WITH THE WHITE MAN. NOW A HUNDRED YEARS LATER THAT SAME CONCEPT CAN WORK FOR BOTH OUR PEOPLES THROUGH UNITY AND UNDERSTANDING THE SUCCESS. BY THIS WE CAN BENEFIT OUR TRIBE AND THIS GREAT COUNTRY.

Louie T Archambeau

Louie Archambeau, Tribal Council Member
Yankton Sioux Tribe
Box #248
Marty, South Dakota 57361

SENATE SUBCOMMITTEE ON WATER & POWER
IN REFERENCE TO THE LAKE ANDES-WAGNER/MARTY II PROJECTS HEARING

SUBMITTED BY JOHN UECKER

SEPTEMBER 14, 1989

My name is John Uecker. I live on a farm, three miles north and one-half mile west of Wagner with my wife and six daughters. I am a farmer with an average-size farm and average-size debt load. I am a member of the Board of Directors of the Lake Andes-Wagner Irrigation District.

I farm where four farmers used to farm when I was in high school, and all four made a more stable living than I can now.

From 1959 to 1976, we lost the biggest share of our wildlife through drought-related conditions.

Our Congressional delegation in the 40's gave away a lot of land and electricity to get irrigation where it is.

I am on the local school board in the Wagner Community school. Our enrollment has dropped 35% in the last three years, and if it weren't for our Indian community it would be worse than that.

I could go on all day on reasons our community should have this project. You tell my why we should not have it?

We have a good clean life back in South Dakota, but a lot of joy is taken away with an economy that is controlled by the weather and the U.S. Government. Neither is very predictable. The longer you wait, the more it will cost everyone concerned.

South Dakota
Water Congress
P O Box 85102 • Sioux Falls, SD 57118-5102 • (605) 334-8744

Statement of

Karen Pearson, Executive Director

On behalf of the South Dakota Water Congress

To the

Subcommittee on Water and Power, considering S202

United States Senate

September 14, 1989

The Honorable Bill Bradley, Chairman

The South Dakota Water Congress fully supports the Lake Andes Wagner Project. In light of the Bureau of Reclamation recommendation, the Water Congress also supports rural economic development alternatives for the Yankton Sioux Tribe.

The Lake Andes Wagner Project would provide immense economic benefits for the people of the area, including members of the Yankton Sioux Tribe, and those benefits would ripple beyond the project to the state and the region.

The new opportunities for diversified farming - the raising of crops such as potatoes, oil-seed crops and alfalfa - would mean economic growth. Irrigated agriculture would assist livestock producers to maintain herds, helping to stabilize an industry vital to all of us. This issue is especially significant in an area where drought disaster has been declared for the second consecutive year.

The South Dakota Water Congress also fully supports the development of additional wetlands enhancement opportunities in South Dakota. We who live and work in the state, and are able to appreciate its great beauty on a daily basis, strive constantly to find the appropriate balance between maintaining and enhancing environmental quality and achieving responsible economic development. We commend the Lake Andes Wagner Project for its commitment to our environment.

We also commend Governor Mickelson and the State of South Dakota for working with the project sponsors to offer a cost share of 39.5 million dollars for facilities. In addition, the project sponsors will administer the construction of the distribution system, resulting in an additional 6.5 million dollar savings to the federal government.

Out-migration is a very real problem for our state. Lack of opportunity for our young people, occurring in part because of our semi-arid climate and inadequate water distribution capability, causes them to live and work elsewhere. Most do not wish to leave, and many would like to return. The Lake Andes Wagner Project is a vital tool in enhancing the economy for all of us, and would provide freedom for our young people to choose to stay and apply their talents and their work ethic in South Dakota.

The South Dakota Water Congress is a broad-based, statewide, citizens' organization with members representing all facets of South Dakota life and philosophy. We all stand together on this issue: We urge you to support the Lake Andes Wagner Project.

SENATE SUBCOMMITTEE ON WATER & POWER
IN REFERENCE TO THE LAKE ANDES-WAGNER/MARTY II PROJECT HEARING

SUBMITTED BY DAN SVATOS

SEPTEMBER 14, 1989

I am Dan Svatos, a farmer from Lake Andes, South Dakota and a member of the Board of Directors of the Lake Andes-Wagner Water Systems, Inc. I am urging this Committee's passage and authorization of the Lake Andes-Wagner Irrigation Project. This irrigation project is imperative to the future of our area and the State of South Dakota. Too many crops are planted and because of drought not harvested. This becomes a severe economic hardship on the farmers of our area. With the construction of this project it will stabilize the economic status of the farmers of this area. I am fortunate in that I presently irrigate from the Missouri River. The quality of the water is superb for irrigation of any crop planted. I have seen the benefits of irrigation and how what little I irrigate has helped stabilize a feed source for my livestock enterprises.

The Missouri River was dammed up under the Pick-Sloan Plan, the Fort Randall dam was constructed in our area forming Lake Francis Case. Under Lake Francis Case lies some of the land that my grandfather once farmed. Part of the deal for giving up land to build the dam was to be the irrigation project. The project, Lake Andes-Wagner Irrigation Project has never been constructed. This is a real example of what has happened in South Dakota with the Pick-Sloan Plan and the constructing of the dams. Land was taken but the irrigation end of the deal was never fulfilled.

The question of surplus crops has been raised. We in the project area are confident that we can produce non-surplus crops such as potatoes, edible beans, sweet corn and the like. Presently, I am producing potatoes under irrigation. Edible beans and sweet corn have been produced in the area under irrigation. I feel that the farmers in this area are interested in irrigating specialty crops, such as potatoes, edible beans and sweet corn, after the construction of the Lake Andes-Wagner Irrigation project.

In conclusion I urge your support authorizing construction of the Lake Andes-Wagner Irrigation Project.

Thank you for your time.

STATEMENT OF LEO HOLZBAUER, CHAIRMAN

OF THE

LAKE ANDES-WAGNER WATER SYSTEMS, INC.

TO THE

SUBCOMMITTEE ON WATER & POWER CONSIDERING S. 202

UNITED STATE SENATE

SEPTEMBER 14, 1989

THE HONORABLE BILL BRADLEY, CHAIRMAN

September 14, 1989

Mr. Chairman;

My name is Leo Holzbauer, and I am the Chairman of Lake Andes-Wagner Water Systems, Inc. I want to thank you for taking the time to conduct this hearing and allowing us the opportunity to present our testimonies.

I am here today to express our deep concerns and the needs to try to stabilize our family income and have more assurance that we can meet our family needs and to try to slow down the loss of our children to the larger cities where that is creating more of a living problem today in itself.

Too many years, just like last year and again this year, our area was hit with a severe drought during the crictical growing season of our crops and with the use of limited irrigation in our area, we can more assure the production of our crops so that we can maintain our livestock herds, and even more important, attact new agricultural processing industries in-to our area. By doing this, we will provide a stronger economic base for our community.

I want to emphasize that we fully recognize the changing nature of our agriculture industry. We must adapt such changes in order to survive. We have no intention of irrigating surplus crop from fence row to fence row. Instead we want to diversify and have alternative crops, such as potatoes, sweet corn, edible beans, alfalfa, and oil seed crops such as sunflowers, safflower, and the like. In the past, we have grown in our area a number of acres of sweet corn and we have proven good production here. The farmers do not have to change their growing practices or their equipment and have big expenses in that respect. But, the only problem we have is that we have no market place for our product, because we have no processing plants near our area. They all are 350 to 400 miles away and it is just to far to haul these crops.

Right now, we are planting potatoes in our area. I've got 130 acres of potatoes now that I am raising, and production is very good, our crop is ready to be harvested, but we have to haul them to the twin cities, Minneapolis-St. Paul area, in order to deliver them. The processing people in that area want to come to our area with processing plants. They are proving their great interest in us by helping us get started in the potatoe industry. They have come out and showed us and told us how things should be done, and most important of all for this year, they have completely on their own, taken on the total expense of hauling our potatoes to their plant. They want our area for production, but they do not have the guarantee that they need of a supply of product in our area so they can come with the processing plants and know that they can keep those plants open year-in and year-out. With those processing plants of potatoes, sweet corn, alfalfa, and the oil seed crops just look at all the jobs that they will bring to this area for our people.

If we can move forward with these new ventures, as an addition to our limited irrigation and livestock operations, I'm confident, that we can meet the challenges before us and provide substantial benefits to all concerned. Mr. Chairman, I am a farmer myself, and I want to emphasize that members of the Lake Andes-Wagner Water Systems, Inc., are all small family farmers and willing to work hard to meet the challenges of the future. We are not farmers and ranchers just because it's fun, but because we want to help meet the needs of America and the Worldwide consumer because we believe in our rural way of life. We plant crops, because we want to harvest and market them. Often times, however, we cannot harvest our plantings because we are hit by those frequent periods of drought. When that happens, we all suffer tremendously, along with our family and community problems that drought causes. It also has a devastating impact on our wildlife that we have in our area.

We have Wildlife Refuges in our Project, Owens Bay and the Redlake Refuge. Right now, Redlake is dried up and the fish have died and the pheasant and deer have to try to find other sources of water to drink. The migratory birds will not have those areas to stay at on their flights this Fall and next Spring. The Lake Andes-Wagner Project, has in its Planning Report, the means to maintain and enhance all wildlife in our Project area.

In conclusion, Mr. Chairman, there is little value in planting a crop if we can not harvest it. Likewise, there is little value in planning a Project if we can not build it. We hope you will help us in our attempt to build the Lake Andes-Wagner Project so that we can plant and harvest our crops. So that we can become more diversified with our alternative crops and help save and maintain our share of our Nations wildlife and meet the agricultural challenges we had before us so that we can all work together to build a better future for our children.

Again, I want to thank-you for your time and we sincerely appreciate your understanding in our commitment to better our way of life. Thank-You!!